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APPROACHES TO WOLF:
SCHENKER, TRANSFORMATION, FUNCTION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor Of Philosophy in the
Graduate School of The Ohio State University

By
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ABSTRACT

Like the works of many late nineteenth-century composers, Hugo Wolf's music inhabits an ambiguous realm of mixed diatonic and chromatic tonality—not quite common practice, yet still resonating with its ideas of harmonic function and voice-leading. This music has posed a significant problem for the field of music theory, theoretically as well as pedagogically. To be more precise, it is not the music itself that is problematic, but the analytic tools used to address it. Schenkerian concepts are useful, even necessary, for this music, but even with modifications this system lacks enough tools to analyze non-traditional motivic and structural connections that permeate Wolf's works. In addition, Schenkerians must constantly grapple with unfamiliar and often undefined prolongations and background structures. Neo-traditional functionalists (those that view three functions (T,S,D) as labels rather than transformations) who dismiss Schenkerian theory have difficulties of their own. While function theory can be quite useful at defining the relationships between chords, it tends to ignore linear aspects of music altogether, always subordinating voice-leading to harmony. Transformation function theory, with far more functional transformations than the neo-traditionalists, has the advantage of creating comprehensibility through understanding the relations between chords themselves, rather than focussing on chords in relation to a tonic. But hierarchical relations are difficult to make; that is, sometimes it is fruitful to put relations between chords in the context of a tonic or tonics. In addition to describing functional relations, Lewin's
transformation graphs and networks also provide a flexible tool for motivic analysis at many levels. This is all to say that these different analytic methods all yield different types of information. Sometimes this information is the same, and described in different terms; sometimes information gained from one source may contribute additional depth or texture to an analytic insight gained through another; sometimes this information is readily accessible only through a given analytic technique. The relationships among these results can give us insight into both the theories themselves as well as the music.

This dissertation examines the uses of these theories, using selected songs of Hugo Wolf as analytical fodder for its theoretical development. With the focus in many fields turning to cross-disciplinary work, it is important for the aims of this dissertation to preserve the distinction between "multidisciplinary" and "interdisciplinary" research. A multidisciplinary approach simply applies (a) theoretical tool(s) from a different (or many different) field(s). By contrast, an interdisciplinary approach uses the theoretical tools of another discipline to interrogate the existing tools within the discipline. I am proposing a type akin to interdisciplinary research that is perhaps best termed intradisciplinary. Instead of merely applying the many music theoretic tools discussed above (a multidisciplinary approach), these theoretical tools are used to interrogate each other. Chapter 1 presents an introduction and an overview of the theories used. Chapter 2 presents the methodological issues raised by the intersections of these different theories, as seen through the lens of an analysis of Wolf's Wir haben beide lange Zeit geschwiegen. Chapters 3 and 4 examine the effect this analysis has on Schenkerian theory, both in relation to "problem" pieces and in general, ultimately leading to a reconsideration of the nature of the Ursatz. Chapter 5 examines the analytic fallout for function theory, as well as
examines several other instances of diatonic and chromatic cycles in Wolf songs. Chapter 6 includes a conclusion, and discusses the pedagogical implications and directions for future research.
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CHAPTER 1
INTRODUCTION

1.1 Issues in the Analysis of Wolf’s Lieder

Like much of late nineteenth-century music, Hugo Wolf’s works inhabit an ambiguous realm of diatonic and chromatic tonality—not quite common practice, yet still resonating its ideas of harmonic function and voice-leading.¹ Music of this kind has posed a significant problem for music theorists as well as pedagogues; most theory textbooks gloss over it or ignore it altogether. To be more precise, it is not the music itself that is problematic, but the analytic tools used to address it. Schenkerian concepts are useful for this music, but even with modifications this system lacks enough tools to analyze the non-traditional motivic and structural connections that permeate Wolf’s works. Here, Schenkerians must constantly grapple with unfamiliar and often undefined prolongations and background structures. These difficulties result in Schenkerian-ish graphs, that, as Daniel Harrison writes, "finesse...tricky and pivotal

¹The term “ambiguous” is used throughout this dissertation to mean “containing multiple possibilities,” similar to Mehrdeutigkeit (Multiple Meaning); it is not used to mean “vague.” On the origins of Mehrdeutigkeit in Georg Vogler and Gottfried Weber, see Janna K. Saslaw and James P. Walsh, “Musical Invariance as a Cognitive Structure: ‘Multiple Meaning’ in the Early Nineteenth Century,” in Music Theory in the Age of Romanticism, ed. Ian Bent (Cambridge: Cambridge University Press, 1996), 211-232.
harmonic spots...with curvaceous slurs and floating note heads," rather than
accounting for the necessary structural and status distinctions that characterize all
music that can still be considered tonal.\(^2\)

Of course, the neo-traditional functionalists (those that view three functions
(T,S,D) as labels rather than transformations) who dismiss Schenkerian theory for
this purpose have difficulties of their own.\(^3\) While their function theory can be quite
useful at defining the relationships between chords, it tends to ignore linear aspects of
music altogether, always subordinating voice-leading to harmony.\(^4\)

Transformation function theory, such as that by David Lewin and Brian Hyer,
with far more functional transformations than the neo-traditionalists, has the
advantage of creating comprehensibility through defining the relations between chords
themselves, rather than focusing on chords in relation to a tonic, as Hyer has pointed
out.\(^5\) Furthermore, pieces with multiple key areas are not problematic; the
transformations show the path a piece has followed through multiple possibilities,
rather than requiring the assertion of one key area as tonic. As one key is transformed
into another, the notation provides footprints that show the path traveled. In addition
to describing functional relations, Lewin's transformation graphs and networks also
provide a flexible tool for motivic analysis at many levels and between different

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\(^3\)The label "neo-traditional functionalist" is awkward at best, and lumps together such
disparate theorists as Eytan Agmon and Daniel Harrison; but for the purposes of this
dissertation, the distinction between those who view function as a label and those who view
function as transformation is more critical.

\(^4\)I do not mean to imply that harmony should be subordinate to voice leading; rather,
theoretically positioning one or the other as subordinate \textit{a priori} tends to preclude
investigating the complex, interdependent relationship that often exists.

"Tonal Intuitions in Tristan und Isolde" (Ph.D. dissertation, Yale University, 1989).
elements. Richard Cohn's hexatonic system, based on transformations through a maximally smooth chromatic cycle, is especially useful for examining third relations. But hierarchical relations are difficult to make. That is, sometimes it is fruitful to put relations between chords in the context of a tonic or tonics.

That is to say, these different analytic methods yield specific types of information. Sometimes this information is the same but described in different terms. Sometimes information gained from one source contributes additional depth or texture to an analytic insight gained through another. Sometimes this information is readily accessible only through a given analytic technique. The relationships among these results offers insight into the theories themselves as well as the music.

This dissertation examines the uses of these theories, using selected songs of Hugo Wolf as analytical fodder for its theoretical development. Songs were chosen according to four criteria: 1) the main key areas of the song are clearly articulated and unambiguous; 2) key areas are prolonged diatonically; 3) relationships between key areas are mostly "non-traditional" (in this case, most key relations are by major or minor third); and 4) the song is not "over-analyzed" in the literature. The principal goal is not to examine all of Wolf's songs, or even to "figure out" how Wolf "works," although that is sometimes a happy by-product of the theoretical examination.

As Kofi Agawu has written, "the purpose here is not to provide a comprehensive analysis of Wolf's music, but rather to explore the viability of various analytic techniques as applied to his works."
of the song[s] as such, but to use a few analytical observations as points of departure for reflecting on methodological issues.⁹

With the focus in many fields turning to cross-disciplinary work, it is important for the aims of this dissertation to preserve the distinction between “multidisciplinary” and “interdisciplinary” research.¹⁰ A multidisciplinary approach simply applies (a) theoretical tool(s) from a different (or many different) field(s). It is a layering approach, lacking interaction between the newly acquired analytic tools. By contrast, an interdisciplinary approach uses the theoretical tools of another discipline to re-evaluate the existing tools within the discipline. (An example in music would be Susan McClary’s use of Marxist and feminist theory to interrogate the idea of absolute music.¹¹) I am proposing an approach akin to interdisciplinary research that is perhaps best termed intradisciplinary. Instead of merely applying the many music theoretic tools discussed above (a multidisciplinary approach), these theoretical tools are used to examine each other. Thus, for example, the analytic results from Lewin’s transformation apparatus influence the ultimate view of Schenkerian theory, while the use of third relations and equal divisions of the octave and its attendant reliance on the 12-tone chromatic is used to examine Harrison’s chromatic scale degree function theory, with its implicit reliance on vestigial diatonicism.

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¹⁰ Professor Judith Mayne, personal communication, Fall 1995.

The remainder of Chapter 1 serves as an overview of the analytical methods used. Chapter 2 presents the methodological issues raised by the intersection of these different theories, as seen through the lens of an analysis of Wolf's Wir haben beide lange Zeit geschwiegen. Chapter 3 examines the effect this analysis of issues has on Schenkerian theory, both in relation to "problem" pieces and in general—ultimately leading to a reconsideration of the nature of the Ursatz in Chapter 4. Chapter 5 examines the theoretical implications for function theory; it also examines several other instances of diatonic and chromatic cycles in Wolf's songs. Chapter 6 offers conclusions and considers the pedagogical implications and directions for future research.

1.2 Overview of Analytic Theories

While many readers will be familiar with many of the theories employed in this study, I provide an overview for the following reasons. First, the title of this study is deliberately ambiguous; while "Schenkerian theory" is a fairly well-defined term (although its content may be contested), "function" evokes a wide range of associations ranging from Riemann to Agmon, and "transformation" can be interpreted even more broadly. Therefore the meanings of these terms in the present context need to be clarified. Second, as a study that takes at its outset the necessity for different theories rather than theoretical unity for the illumination of this type of music, it is likely that my understanding and use of these theories is filtered through my own objectives, and I seek to make those filters clear to the reader. Finally, several of the theories employed have been developed quite recently, and may not be
familiar to all readers. To these ends, I provide an overview of the significant features of the theories employed in the analyses throughout the following chapters.

1.2.1 Schenkerian Theory

Schenkerian theory, of course, is quite well-established in the field of music theory, and any “overview” would necessarily be selective and incomplete. I merely wish to outline the aspects of Schenkerian theory that will be especially relevant to this study. Because the pieces by Wolf analyzed in this study tend to prolong key areas diatonically, we will be concerned mainly with the Ursatz itself. Most simply, the Ursatz is a harmonic and contrapuntal structure, of which two voices are constrained by scale degree, type of motion and relative registral placement.\(^\text{12}\) These two voices are the Ur linie and Bassbrechung; the Ur linie, the upper voice, begins on a member of the tonic triad other than 1, and descends by step to 1 (a passing motion), while the Bassbrechung, the lower voice, arpeggiates 1-5-1.\(^\text{13}\) The Ursatz is then acted upon by transformations, such as arpeggiation, repetition, unfolding, and so on; the particular transformations employed generate the specific prolongations and

\(^\text{12}\)It is often asserted that the Ursatz is a two-voice structure, from which the entire contents of a piece is generated. This is not possible using the Schenkerian transformations; there is simply no way to generate all of the contrapuntal activity in the inner voices. Rather the harmonic aspect of the Ursatz to which Schenker usually affixes the harmonic labels I-V-I implies that the triad is completed by implicit inner voices at the background level. Schenker simply does not notate them unless they are required for a specific transformation at the next level, because they are not constrained in the same way that the Ur linie and Bassbrechung are. Schenker often notates the inner voices explicitly as part of the Ursatz in Das Meisterwerk. See, for example, Volume I, Chapter 4, Figure 1a, the Ursatz of Bach’s Partita No. 3 For Solo Violin (Munich: Drei Masken Verlag, Jahrbuch I: 1925, Jahrbuch II: 1926, I. ed. and trans. William Drabkin as The Masterwork in Music: A Yearbook. (Cambridge: Cambridge University Press, 1994); II. ed. William Drabkin, trans. Ian Bent, John Rothgeb, William Drabkin, Hedi Siegel. (Cambridge: Cambridge University Press, 1996)). See the discussion in Gregory Proctor, “Systematic Discontinuity in Schenker,” paper presented at the Society for Music Theory Annual Meeting, Baltimore, 1988.

\(^\text{13}\)I am using the term “voice” informally here; strictly speaking, the bass arpeggiation is composed of two voices.

6
content of the piece. The types of transformations that can occur at the first level middleground are limited (for example, a neighbor note is allowed only to the Kopfton), but subsequent levels allow for freer use of transformations.

But embedded in the Schenkerian Ursatz are several other requirements, of which the most relevant for this study are given below. First, diatonic tonality, is assumed. The Schenkerian notions of mixture and tonicization require maintaining the distinction between, for example $b6$ (mixture) and $\#5$ (tonicization) at least theoretically and practically, regardless of whether or not they inhabit the same physical pitch or undergo an enharmonic transformation. Second, a single overall tonality is assumed. If a piece begins in one key area and ends in another, one of the keys ultimately must be interpreted as subordinate to the other. Third, there is an ultimate distinction between consonance and dissonance. Consonance arises locally from the triad, and globally from the tonic, with the dominant as the main harmonic dissonance. Fourth, the goal of the Ursatz is to both create and release tension; tension is resolved only when $\hat{1}$ is reached in both the Urlinie and Bassbrechung, and supported by $I$.

1.2.2 Transformations

The use of transformations in this study is based on the work of Lewin. Lewin's transformations are particularly useful for this study. Much of music theory has focused on measuring the discrete intervals between static objects. For example, it is assumed that a C and an E are different objects that exist at specific point of space or time. One can then measure the distance ($M3^{rd}$, 4 semitones, or temporal or other

\[\text{For a discussion of the difference between diatonic and chromatic tonality, see Gregory Proctor, "Technical Bases of Nineteenth-Century Chromatic Tonality: A Study in Chromaticism" (Ph.D. diss., Princeton University, 1978).}\]
distance) between the two objects. This theoretical view is essentially modeled by Lewin's Generalized Interval Systems. Generalized Interval Systems can contain transformations, but they are restricted to those which are one-to-one and onto, and are thus termed operations.

For example, let us consider the familiar universe of pitch classes, 0 through 11, as represented by a modular "clock face." Suppose that there is a collection of notes, S, which is twelve pitch classes [0 1 2 3 4 5 6 7 8 9 A B]. Let us apply the transformations T_i to each pitch class in S (transposition by 1 semitone). This yields [1 2 3 4 5 6 7 8 9 A B 0]. All members of this transposed set correspond to members of the original set; thus T_i is a transformation from S into itself. Moreover, because the transposed pitch classes correspond to all members of the original S, we can say that T_i is a transformation of S onto itself. Further, because each member of the transposed S is unique and corresponds to only one member of the original S, we can say that T_i from S onto itself is one-to-one. Operations therefore also have an inverse, or an operation that "undoes" each result, and an identity element.\footnote{Schenkerian transformations (such as passing) are often referred to informally as "operations," even though they are not one-to-one and onto. This study preserves the distinction between transformation and operation, and thus refers to Schenkerian processes as transformations.}

Let us now define a transformation on the same universe of modular pitch classes, called "next highest white note," or NHWN. This causes a note to move to the next highest "white note," as represented by a standard keyboard; thus NHWN(A)=B, while NHWN(A#)=B.\footnote{If the reliance on a keyboard is troublesome, one can also define NHWN as moving to the next highest note of the C major or A minor scale, or the Ionian or Aeolian mode.} If we take the original set S [0 1 2 3 4 5 6 7 8 9 A B] and apply NHWN, it yields S' [0 2 2 4 4 5 7 7 9 9 B B]. Each member of S' belongs to S, so NHWN is a transformation from S into S'. But...
note that some members of S appear more than once in S', while other members of S
do not appear at all in S'. Thus NHWN is neither onto nor one-to-one, and therefore
not an operation. Also note that NHWN does not have an inverse; for example, there
is no way to define whether 2 "undoes" to 1 or to 0.

On the other hand, the theoretical view is modeled by Lewin's Transformation
Graphs and Networks is slightly different. From a transformation perspective, an
object is changed by various transformations. Thus C becomes E by applying a
transformation, such as T₂ (transposition by two diatonic whole steps) or T₄
(transposition by four semitones). Transformations in this context may or may not be
operations. As can be seen from the discussion so far, transformations can be
contextually determined. Apart from the familiar transformations such as
transposition, inversion, retrograde, and so on, Lewin defines other transformations
such as "wedge" and "slide," which have relevance in the analysis of particular
pieces.¹⁷ We will also contextually define transformations in some of the following
analyses. It is important to remember that this contextuality can change the meaning
of familiar transformations. For example, in traditional set theory, T₁ means to
transpose by one semitone. But a contextually-determined T₁ means to transpose by 1
unit as defined by the current system. That unit may be a semitone, in which case
T₁(C)=C#. In a diatonic system, the unit may be a diatonic step, regardless of its
chromatic size, in which case, given C major, T₁(C)=D and T₁(E)=F. Given the
circle of fifths, T₁ means moving clockwise by one "click" around the circle of fifths.
Therefore T₁(C major)=G major. In addition, the generalization of transformations
allows different elements, especially those other than single pitches, to be paired and

¹⁷But see Richard Cohn, "Review of David Lewin's Generalized Musical Intervals and
Lewin's "wedge" analysis.
compared. For example, one can compare a series of pitches with a series of harmonies by comparing the transformations that obtain between them, as long as the transformations are defined the same way. Intervalic and transformational thinking often complement and extend each other, but from different perspectives.

A Transformation Graph consists of **nodes**, **arrows**, and a **function**, as shown in Figure 1.1. This graph represents that the eventual contents of node $M_i$ is transformed by function $X$ into the contents of $M_2$.

![Figure 1.1 Transformation Graph](image)

A Transformation Network is a Transformation Graph with the nodes filled in, as shown in Figure 1.1. This network can be translated as “$S_1$, which is the contents of node $M_i$, is transformed by $X$ to become $S_2$, which is the contents of node $M_2$.” Thus a graph is more general, while a network is more specific.

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18Formally, it is an ordered quadruple (NODES, ARROW, SGP, TRANSIT). The function (TRANSIT) must map the arrow into a semigroup (SGP); if TRANSIT maps ARROW into a group, it is called an *operation graph*. A group is essentially a semigroup that has an inverse for each element. See the discussion in Lewin, *GM IT*, 4-5, 193-196.

19Again, formally a transformation network is an ordered sextuple (S, NODES, ARROW, SGP, TRANSIT, CONTENTS). This changes the transformation graph in several ways. $S$, a family of objects to be transformed, is added. (NODES, ARROW, SGP, TRANSIT) is still a transformation graph as defined above, but now SGP is a semigroup of transformations specifically on $S$. CONTENTS is a function mapping NODES into $S$; in other words, CONTENTS($M_i$) can be read as “the contents of node $M_i$.” See Lewin, *GM IT*, 196-197.
In this dissertation, transformations are used mainly to describe the relationship between single pitches and chords in the context of diatonic and chromatic systems, as well as in cycles (similar to the "circle of fifths" example given above). Transformation Graphs and Networks are used to describe the compositional space that a piece engages.

1.2.3 (Hyper-) Hexatonic Systems

Richard Cohn has used Lewin's transformations to examine collections of notes that are able to participate in *maximally smooth cycles*. A *cycle* is an ordered set that contains at least four elements, the first and last of which are identical, and the others of which are distinct. Each element belongs to the same set, and are joined to each other by the greatest voice-leading efficiency. The set class Cohn is concerned with in this case is 3-11, the major/minor triad. The greatest voice-leading efficiency is that only one voice moves at a time, and that move is by semitone, as shown in Figure 1.3. (Lines indicate motion by semitone; other voices are held. The chord quality is indicated by a "+" for major, and a "-" for minor.)

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Figure 1.3 Maximally smooth cycle of set class 3-11

Note that the sequence of triads in Figure 1.3 begins and ends with F major without exhausting all the possible triads in set class 3-11. In fact, set class 3-11 contains 24 distinct triads, but a maximally smooth cycle formed by triads creates co-cycles of six distinct members each. These co-cycles are termed hexatonic systems by Cohn, and distinguished by their geographical position, as shown in Figure 1.4. In this context, each hexatonic $T_i$ means to move one triad clockwise around the system. Thus $T_1(C+) = C-$; $T_2(C+) = G\#-$.
The triads related by $T_3$, which are directly “opposite” each other in the cyclic representation in Figure 1.4 (such as $A^+$ and $F^-$, or $G^-$ and $B^+$) are called hexatonic poles. Hexatonic poles have no common tones, are modally mismatched, and require contrary motion in closed position. According to Cohn, motion between hexatonic poles, “resists interpretation in terms of diatonic tonality,” and is often associated with
But a piece rarely remains confined to a single hexatonic system for long. Thus Cohn links together the hexatonic systems into a hyper-hexatonic system, as shown in Figure 1.5.

Figure 1.5 The hyper-hexatonic system, Fig. 5 from Cohn, "Maximally Smooth Cycles, Hexatonic Systems," 24.

Cohn, "Maximally Smooth Cycles, Hexatonic Systems," 20-21. Cohn gives examples from Wagner’s *Parsifal* (Kundry’s *Entseelung*, an instance of the Grail motive), and Mahler’s Symphony No.2 ("Resurrection").
Here each hexatonic system is related to its neighboring systems in terms of shared pcs and in voice-leading efficiency. In other words, voice-leading between members of neighboring systems is more efficient (requiring fewer total semitone motions) than voice-leading between complementary systems. In this context, a hyper-hexatonic $T_1$ rotates clockwise through the hexatonic systems. Thus $T_1(H_5) = H_2$. But note that relationships between specific triads in different hexatonic systems are left undefined. That is, there is no way to relate $C+$ specifically to $A-$; one can only indicate a hyper-hexatonic transformation between the systems that each inhabits. Thus the specific way a transition between hexatonic systems is achieved is often better represented by a different means.

1.2.4 Transformation and Function

"Function" is used in several ways in this dissertation; I will first discuss the function perspective that interacts with transformation theory. I will discuss non-transformational function in the following section.

"Function" in this case refers to Brian Hyer's exploration of the transformational possibilities of Riemannian function theory. The transformations we will be concerned with in this study are $R$, $P$, and $L$. $R$, or "relative," simply takes a triad and turns it into its relative major or minor. Therefore $(C+)_R = A-$; $(A-)_R = C+$. $P$, or "parallel," transforms a triad into its parallel major or minor; thus $(C+)_P = C-$, while $(C-)_P = C+$. $L$, or "Leittonwechsel," retains the minor third of a triad, and moves the major triad in the key of C to an E minor triad in the key of A minor.
other voice a semitone (hence "leading tone exchange"), thus relating triads a major third apart; \((F+)L=A-\), and \((A-)L=F+\). These transformations can be combined. Thus \((F+)PL=D^+\), because \((F+)P=F-\) and \((F-)L=D^+\). The transformations \(PL\), \(LP\), and their identity, \(I\), form a group of transformations on the set \{\((F+)\), \((D^+)\), \((A+)\)\}. That is, applying \(PL\), \(LP\), or \(I\) to any of those triads yields a member of that set of triads.

Note that these are the same triads that form Cohn's eastern hexatonic system. That is, the same triads in the maximally smooth cycle in Figure 1.3 can be labelled with Hyer's transformations as shown in Figure 1.6.

![Figure 1.6 Cohn's maximally smooth cycle with Hyer's transformations](image)

The transformations \(PL\), \(LP\), and \(I\) also form a group of transformations on the sets of triads \{\(C^+, A^+, E^+\)\}, \{\(G^+, E^+, B^+\)\}, and \{\(D^+, B^+, F^#+\)\}, the remaining sets of triads that form Cohn's hyper-hexatonic system. But Hyer schematizes this system differently from Cohn, as shown in Figure 1.7.

---

23 Although the minor triads are not explicit, they are implicitly contained within the \(P\) of the \(PL\) transformation. Hyer shows how the original transformational identity of \(P\) and \(L\) is retained in a \(PL\) transformation in his analysis of the Schlafakkorden from Die Walküre in "Reimag(in)ing Riemann," 111-112.
Between each paired triad a P relation obtains. R relations move along the lines from the lower right-hand corner to the upper left (and circling around when necessary), while L moves from the lower left-hand corner to the upper right. Thus each of Cohn's hexatonic systems, as a combination of L, P and I, moves along the lower left to upper right diagonal. But at the same time, communication is not cut off between other triads. Depending on the context of the piece, either Cohn's or Hyer's representation of the same group phenomenon will be more useful. Note that in this case, function is conceived of as the relationship between chords, rather than the labeling of the chords themselves with a fixed functional identity.
1.2.5 Non-transformational Function

Probably the most familiar example of assigning functional identity to the chords themselves is the fairly common use of T, S, and D to denote I, IV, and V or their substitutes. While this type of functional analysis is occasionally used informally, most of the use of non-transformational function theory in this project is that developed by Daniel Harrison. Hyer and Lewin explicitly try to remove any dualist remnants from their Riemannian-based transformations; Harrison, on the other hand, embraces the duality of major and minor as a fundamental definition of tonality, positing, among other things, the opposition between the characteristic semitones 7-8 in major and 6-5 in minor (although their modal variants 7-8 and 6-5 are eventually equivalently interpreted). This duality in turn generates different networks of relationships.

Two parts of Harrison's theory are especially relevant for this study. The first assigns specific functional descriptions to the scale degrees that constitute the tonic, subdominant, and dominant triads, as shown in Figure 1.8. The base is the root of the chord, the agent is the third, and the associate is the fifth. The function of chords other than tonic, dominant, and subdominant can then be ascertained based on the function of the scale degrees that comprise them.

---


26 Henry Klumpenhouwer points out that vestiges of dualism remain because, for example, L followed by R yields S when applied to major, but L followed by R yields D when applied to minor. Thus Klumpenhouwer revises the definition of L in "Some Remarks on the Use of Riemann Transformations," *Music Theory Online* 0/9 (July, 1994).

Note that there is some overlap among functional descriptions; \( \hat{1} \) is both the subdominant associate as well as the tonic base, while \( \hat{5} \) is both the tonic associate and the dominant base. Thus there are preference rules to determine which influence is most prominent. For example, for a scale degree to act as a base, it must either be the lowest voice in the music, or it must be accompanied by its agent. If \( \hat{4} \) is accompanied by \( \hat{1} \) or \( \hat{5} \), it is considered hierarchically weaker because of the traditional dominance of the tonic-dominant axis. Agents, on the other hand, are unique to each function, and therefore express their function regardless of their register or accompanying pitches. Associates are the weakest, "dependent on the presence of agents or bases for what little functional power they have."\[^{28}\] Thus, for example, the mediant triad could be considered either Tonic or Dominant, depending on its voicing, as shown in Figure 1.9.

\[^{28}\text{Harrison, Harmonic Function in Chromatic Music, 55.}\]
Similarly, the diminished seventh chord on $\tilde{7}$ is seen to have a mixed dominant and subdominant function, with $(\#)\tilde{7}$ and $\tilde{2}$ acting as the dominant’s agent and associate, but $4$ and $b\tilde{6}$ acting as the subdominant’s base and agent. 29

I have characterized Harrison’s work as “non-transformational,” and what I have described so far—that is, labelling chords according to their discrete constituents—essentially is. However, Harrison’s concept of “discharge” is fundamentally transformational. While the idea of functional mixture describes the functional impression that occurs synchronically within a single chord, discharge account for how function changes diachronically between chords. Again, single scale degrees, classified as before as bases, agents, or associates, are paired as normative voice-leading patterns; as one scale degree accumulates tension associated with its function, it discharges this tension onto the next scale degree. A familiar, intuitive example is $\tilde{7}$ discharging on $1$ as indicative of dominant moving to tonic. Although all elements

---

(bases, agents, associates) participate in discharges, an agent must move for there to be change of harmonic function; thus agent discharges are more relevant for this study. The pertinent agent discharges and their functional meaning are given in Figure 1.10.

\[
\begin{array}{ccc}
3 & 4 & T - S \text{ discharge} \\
3 & 2 & T - D \text{ discharge} \\
6 & 5 & S - T \text{ discharge} \\
\tilde{7} & \tilde{1} & D - T \text{ discharge} \\
\check{6} & \check{5} & S - D \text{ discharge} \\
\check{7} & \check{1} & D - S \text{ discharge} \\
\end{array}
\]

Figure 1.10 Discharges from agents, based on Figures 3.2 and 3.3, Harrison, *Harmonic Function in Chromatic Music*, 92-93

Note that again there are overlaps; \(7 - \tilde{1}\) can be considered a \(D - T\) or a \(D - S\) discharge, while \(\check{6} - \check{5}\) can be a \(S - T\) or a \(S - D\) discharge, depending on the context.

Based on these agent discharges, Harrison proposes dual authentic and plagal cycles, as shown in Figure 1.11.

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30There is a misprint in Harrison's authentic cycle in Figure 3.4, p. 97. It is corrected in the example given here.
Figure 1.11  a) Plagal cycle, and b) Authentic cycle, based on Figures 3.4 and 3.5, Harrison, Harmonic Function in Chromatic Music, 97

We can see from the above discussion that the analytic methods sometimes overlap, merely using different terminology to describe the same phenomenon. Other theories generate radically different perspectives. Having thus briefly outlined the analytic methods to be employed, let us examine some of the analytic difficulties inherent in the analysis of Wolf’s lieder, beginning with an analysis of Wir haben beide lange Zeit geschwiegen.
CHAPTER 2

THE INTERACTION OF TRANSFORMATION NETWORKS, SCHENKERIAN THEORY, FUNCTION THEORY, AND HEXATONIC CYCLES IN WOLF’S 
WIR HABEN BEIDE LANGE ZEIT GESCHWIEGEN

Hugo Wolf’s *Wir haben beide lange Zeit geschwiegen* is a challenging piece to analyze according to traditional methods because it begins and ends in different keys, lacks a structural dominant in the expected place, and contains several chromatic passages and relations. As such, it provides a useful introduction to many of the issues encountered in many of Wolf’s *lieder*, as well as in other works of the same period. This chapter will examine this piece from the perspective of transformation, Schenkerian, function and hexatonic theory, and trace the theoretical and analytic influences among them. The remaining chapters will examine the theoretical implications of this analysis for each theory.

2.1 Motivic Transformation Analysis

The text of *Wir haben beide lange Zeit geschwiegen* (hereafter referred to as *Wir haben*), along with my literal, if inelegant translation, is given in Figure 1.1.

---

31 *Wir haben Beide lange Zeit geschwiegen*, an anonymous Italian poem translated to German by Heyse in his *Italienisches Liederbuch* (1860), was set by Hugo Wolf in his *Italienisches Liederbuch* #19 in 1891. Full scores of pieces analyzed are found in the Appendix.

32 Although I devote considerable attention to the text in many of my analyses, I do not engage the methodological difficulties that arise when the two distinct semiotic systems of music and poetry come together in the *lied*. For an introduction to many of these issues, see Agawu.
Wir haben Beide lange Zeit geschwiegen,
auf einmal kam uns nun die Sprache wieder.

Die Engel die herab vom Himmel fliegen,
sie brachten nach dem Krieg den Frieden wieder.

Die Engel Gottes sind herabgefliegen, mit ihnen ist der Frieden eingezogen.

Die Liebesengel kamen über Nacht und haben Frieden meiner Brust gebracht.

We have both been silent a long time, suddenly speech has returned to us again.

The angels who fly down from heaven, after the war have brought peace again.

The angels of God have flown down, with them is brought peace.

The angels of love came over night, and have brought peace to my breast.

Figure 2.1 Text of Wir haben Beide lange Zeit geschwiegen

Given Wolf's emphasis on the importance of the text, it is not surprising that the overall structure of the piece corresponds to the main divisions of the text (as shown in the English translation), with each repetition of "the angels" initiating a new key area. The song opens with an ambiguous, chromatically tonal, five-measure phrase outlining the tritone F-C♯ in the bass. But then the F in the soprano moves up to an F♯ to form a stable B minor chord, and under the words "speech has returned" (mm. 4-5), the harmony becomes functional as it moves through an I♭⁶ to V⁷ of D♭, the first stable key area of the piece. After being "silent for so long," speech returns to

"Theory and Practice in the Analysis of Nineteenth-Century Lied." The purpose here is to clarify the nature of music as a semiotic system.

37 For Wolf, the poetry was at least as important as the musical component. He refused to set what he considered inferior poetry, and was reluctant to write music for any text that had already been set by another. When his songs were published, not only would the title read, "Poems by [poet], for voice and piano, set to music by Hugo Wolf," but Wolf insisted that the poet's portrait be included rather than his own. See the discussions in Ernest Newman, Hugo Wolf (London: Methuen, 1907), 153; and Frank Walker, Hugo Wolf: A Biography (New York: Knopf, 1968), 238; qtd. in Stein, Hugo Wolf's Lieder, 4-6.

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provide peace and diatonic tonal stability. The first statement of "the angels" begins the D♭ major section (mm. 6-9), the next statement is in G♭ major (mm. 10-13), and the final statement is in E♭ major (mm. 14-21).

The same transposition scheme provides a compositional grid or template for many pertinent relationships in the piece. For example, a transformational examination of the overall key succession following the ambiguous introduction yields Figure 2.2.

![Figure 2.2 Wir Haben, overall key succession](image)

Similar transformations occur throughout the piece. The transpositions between the harmonies in m. 6, each represented by its root, are shown in Figure 2.2, adding another link to the chain of transformations shown in Figure 2.2. Remember, Figure 2.2 refers to keys, while Figure 2.3 refers to chords in keys.

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This is similar to the opposition between what Marianne Kielian-Gilbert calls the "transpositional" and "harmonic" in her "The Functional Differentiation of Harmonic and Transpositional Patterns in Liszt's Consolation No. 4," Nineteenth-Century Music 14(1990), 48-59. Deborah Stein also briefly discusses this opposition in Hugo Wolf's Lieder, 188-193.
This is, of course, a standard tonal progression of I-IV-II-V, and may seem at first insignificant; but it is repeated so many times in each key area that it becomes a pervasive motive itself. This pattern occurs in mm. 6, 7, 10, 11, and in modified form in mm. 14-15 (which is to say, in one-fourth of the entire composition), coinciding with each repetition of text at the beginning of each key area. This is notated as $S_1$, $S_2$, and $S_3$ in Figure 2.4.

<table>
<thead>
<tr>
<th>Key</th>
<th>measures</th>
<th>chords</th>
</tr>
</thead>
<tbody>
<tr>
<td>$S_1$=$D^b$</td>
<td>6, 7</td>
<td>$D^b$ $T_5$ $G^b$ $T_9$ $E^b$ $T_5$ $A^b$</td>
</tr>
<tr>
<td>$S_2$=$G^b$</td>
<td>10, 11</td>
<td>$G^b$ etc. $C^b$ $A^b$ $D^b$</td>
</tr>
<tr>
<td>$S_3$=$E^b$</td>
<td>14, 15</td>
<td>$E^b$ etc. $(A^b)$ $F$ $B^b$</td>
</tr>
</tbody>
</table>

Figure 2.4 *Wir Haben*, repeated chord sequence at beginning of each key area
Further, the pitches of the melodic figure in the right hand in m. 6 produce the network shown in Figure 2.4, which uses the same set of transpositions as Figure 2.4 and Figure 2.3, although in a somewhat different arrangement (this repeated melodic figure is also heard in mm. 7, 10, 11, 14, 15, again one-fourth of the composition).

![Network Diagram](attachment:image.png)

Figure 2.5 *Wir Haben*, m. 6, piano RH melody

When the voice enters with its first statement of "the angels" in m. 6, its first note, B♭, interjects itself between the piano's D♭ and E♭. These are easily aurally associated; the right hand piano part has just enveloped the vocal register before both meet on C, the last note of the measure. Including the voice in Figure 2.5 produces the network in Figure 2.6.
This is very similar to the networks in Figure 2.6 and Figure 2.6. These can be represented generally by the graph in Figure 2.6. That is, each of the previous networks may be traced on this motivic transformation "grid."

Figure 2.7, which used the same set of transformations but in a different arrangement, can now be seen as tracing a different path through Figure 2.7, as shown by the line in Figure 2.8.
It is also interesting to note the bass line because the notation for the left hand is reconfigured in m. 5. The previous measures have been in regular piano scoring notation, with the stems drawn according to the register of the pitches (the alto line gets its own voice in m. 3). In mm. 5-6, the bass line is beamed separately. This bass line, beginning one measure before the soprano entrance in m. 6, foreshadows in augmentation the right-hand line in m. 7, which was examined in Figure 2.5 above (see Figure 2.9).

The overlapping of this motivic network is quite common, and is often reinforced by some of the prominent doublings in this piece. For example, in mm. 7-9 between the piano right hand and the voice, the doubling serves to bring out the
similar transformations, as shown in Example 2.1. (Note that T8 typically serves to connect repetitions of this network).

Example 2.1 Wir Haben, mm. 7-9, doubling of piano RH and voice

These are only a few examples of the many recurrences of this transformation network. Instead of pursuing this further, let us examine more closely the relationships among the repeated chord progressions in each key area that were previously shown in Figure 2.4. The chord roots in m. 6 generate the sequence of key areas for the piece (or vice versa). This general phenomenon of enlargement in both tonal and post-tonal music has been recognized by many, most recently by Brian Alegant and Don McLean. My own study suggests that chromatically tonal music provides a fruitful area for investigation, although not necessarily from a Schenkerian "enlargement" point of view. Instead of thinking of this as an "enlargement" of a

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Avo Sommer has identified chromatic third-relations as important in both the large-scale tonal plan and foreground details of Debussy’s “La chevelure” in “Chromatic Third Relations and Tonal Structure in the Songs of Debussy,” *Music Theory Spectrum* 17/2(1995): 215-241.

---

specific, concrete motive, I prefer to consider that both the sequence of key areas and chord progressions provide concrete manifestations of the abstract graphs given above. Completing this pattern produces the block shown in Figure 2.10. (The projected completion, shown at $S_\pi$ is in parentheses).

<table>
<thead>
<tr>
<th>Key</th>
<th>measure</th>
<th>chords</th>
</tr>
</thead>
<tbody>
<tr>
<td>$S_1$</td>
<td>$E^\flat$</td>
<td>$6,7$</td>
</tr>
<tr>
<td>$S_2$</td>
<td>$G^\flat$</td>
<td>$10,11$</td>
</tr>
<tr>
<td>$S_3$</td>
<td>$E^\flat$</td>
<td>$14,15$</td>
</tr>
<tr>
<td>$S_4$</td>
<td>$(A^\flat)$</td>
<td>$-$</td>
</tr>
</tbody>
</table>

Figure 2.10 Wir Haben, relationships between repeated chord sequences and key areas

Several interesting relationships emerge from Figure 2.10. $S_2$ is the RI of $S_1$ around its first member, $D^\flat$. We will call this operation RI-first. In this piece it is also $T_2$. $S_3$ is the RICH of $S_1$, which is also $T_2$. Similarly, $S_4$ is the RI-first of $S_1$, as well as the RICH of $S_2$. This is represented in the network in Figure 2.11.
As Bo Alphonce has noted, it is important to distinguish between trivial and pertinent RI/RICH transformations. While this may seem an excessively elaborate way to describe transpositions, simple transpositions alone do not convey the degree of pitch repetition in this case, as Figure 2.12 demonstrates.

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Figure 2.11 *Wir Haben*, RI-First and RICH relations

Figure 2.12 *Wir Haben*, pitch repetition

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The only pitches not repeated are C and F. These are also the pitches that, in three octaves, outline a tritone in the first two measures under the text "We have both a long time been silent." This can be seen as representing "silence"; although both pitches are present, neither "speaks" (is repeated), unlike the pitches which are repeated when the "angels" bring speech.

This motivic transformation analysis ties the overall key scheme to both recurrent harmonic and melodic motives. It seems to account for much of the structure, detail, and text of the piece. And yet this analysis is somewhat misleading; I have painted a picture of a tight, unified web of transpositions, governing nearly exact repetitions of music. The analysis gives the impression that the overall key scheme is "only" transpositional, and therefore not yet organized in hierarchies of transpositions. The analytic tool, and certainly the way I have applied it, have led to this filtering of information. But this analysis has also ignored the second half of each key area, namely the portions that do not contain literal repetitions, but rather provide the links between key areas. Let us examine this material from a perspective that is normally mildly obsessed with hierarchy—namely, a Schenkerian perspective.

2.2 Schenkerian Analysis

This piece is difficult to analyze from a strict Schenkerian point of view. First, the only way that Schenker dealt with pieces that begin and end in different keys was to treat them as a form of auxiliary cadence;\(^{38}\) and second, Schenker himself did not

\(^{38}\) Heinrich Schenker, *Free Composition*, trans. and ed. Ernst Oster (New York: Longman, 1979). See, for examples, pp. 88-90, and figure 13, his sketch of Chopin's Scherzo, opus 31. Although its first 48 measures are clearly in B minor, the Scherzo ends in D major. Schenker
analyze much of this type of music. He does, of course, analyze one Wolf song in *Der freie Satz*. He sketches "Das Ständchen" as a series of major thirds spanning the entire piece, calling it a "descending register transfer by means of three major thirds," as shown in Example 2.2. * (Actually, Schenker's figures 100.6.a and b represent *descending* register transfers; *Das Ständchen*, as shown in Schenker's figure 100.6.c, presumably contains an *ascending* register transfer by means of three major thirds.) It is not clear at what level this occurs, although from the notation it is likely a late middleground event. Unfortunately, that is all he says about the piece; larger questions about the piece’s fundamental structure, if there is one, remain unasked and unanswered. In fact, many have raised the valid question of whether or not Schenkerian analysis is useful at all for this type of music.

\[\begin{array}{c}
\text{Example 2.2 Schenker, *Free Composition*, Figure 100.6.c}
\end{array}\]

views the entire piece in D major; the opening B₅ minor section is not regarded as part of the work’s fundamental structure, but instead acts as VI in relation to the closing D₄ tonic.

Schenker includes several graphs of possible manifestations of this phenomenon, also called the "incomplete transference of the forms of the fundamental structure," as well as sketches of pieces in which this occurs, in figures 110 and 111. There are also other examples of works employing auxiliary cadences scattered throughout the book.

*Schenker, *Free Composition*, figure 100.6.c.*
One special difficulty this piece presents is how to determine the status of a dominant; that is, when and how does a dominant achieve structural status? In order to do a strict Schenkerian analysis, a structural dominant is required; in addition, a single tonic is assumed. Thus in this initial analysis I will posit the dominant B♭ in m. 13 as the structural dominant of the final key of the piece, E♭. This dominant is approached at the end of the G♭ section by reinterpreting G♭ as a neighbor to B♭ (♭VI/V); B♭ then lasts for two beats as dominant of the final key area E♭. (It is interesting to note that the bars in which the transition from G♭ to E♭ occurs, from the middle of bar 12 to the downbeat of m. 14, replicates the overall structure of the piece.)

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*It is not clear that Schenker rejected the idea of double tonality entirely; rather it seems that he thought it less organic and therefore less good. See, for example, this footnote from Free Composition (89), "Anton Bruckner was not capable of starting a musical thought, much less a whole first movement, with the aid of an auxiliary cadence. Thus the impression of a rigid succession of thought in his work: the ideas usually come in blocks, each one with a new tonic at the beginning."

Some might argue that $B^b$ does not occupy sufficient time to act as a structural dominant; this objection is essentially irrelevant to Schenkerian theory. Schenker does not specify a length that a scale step needs to occupy. In his musical universe, the dominant is always there and always part of the structure despite its duration, and in fact, real durations of dominants can vary widely in classical tonality. When a piece does not fit the mold perfectly, what "counts" as structural becomes difficult to determine (similar arguments occur over such things as octave lines, and even $\hat{5}$-lines); duration, articulation, register, harmonic motion, and the like all become important. $B^b$ as V/E$^b$ is prolonged for the last full two beats of m. 13; in a piece of 21 measures, or roughly 84 beats, this dominant occupies two beats, or 2.4 percent. While this percentage may seem small, consider that this lasts much longer than the dominant in the first movement of Mozart's piano sonata in F, K. 332, which lasts two beats out of 229 measures, or .87% (I am referring here to the literal dominant that accompanies the final descent). In fact, the dominant in Wir Haben may last longer statistically to compensate for its lack of dominant harmony anywhere else. This is unlike the Mozart sonata, which has a typical sonata form interruption with a dominant prolongation, as well as repeated cadences in the tonic. On the other hand, despite its statistical length, this dominant does sound a little short in this context. And although it can be construed to exist for the length of the dominant, the literal A$^b$ on the surface, or scale degree $\hat{4}$, lasts for only an eighth note. We will return to this later.
The final E♭ section, which is the "real" tonic in a strict Schenkerian reading, is quite interesting. Here one again expects the sequence of repeated chords I-IV-ii-V-I as in mm. 6, 7, 10, and 11; but in this final section, some of the harmonic durations are now expanded, and the IV is omitted completely from the pattern, as shown in Example 2.3.

Example 2.3 Wir Haben, mm. 14-15, expansion of harmonic durations

An interesting consequence of this alteration is that the dominant harmony, which had previously and predictably resolved to I on the downbeat of each of the following measures, now holds over the bar line, conflicting with the reiteration of the E♭ pedal on the downbeat of m. 15, and joining the soprano's F, which also literally
hold over the bar line. This tied F is the highest vocal note in the piece; moreover, the only other note that the vocal line ties over a bar line is also the F an octave below, in the introduction (from mm. 1-2), suspended on the word *lange*. One could plausibly, and perhaps too predictably, rewrite the passage to conform with the previous repetitions, as shown in Example 2.4. The soprano F would then resolve as a suspension to Eb as part of the tonic in bar 15, instead of arpeggiating down to D and part of the extended dominant harmony. But by extending the dominant as Wolf does here, a sense of suspension of time, of ecstasy, is achieved, as not just *die Engel*, or *die Engel Gottes*, but *die Liebesengel* has brought peace.

Example 2.4 *Wir Haben*, mm. 14-15, rewritten
In addition, the Eb section contains several coda-like features. In m. 16, a b7 is added to I, which then resolves to IV (a typical coda move); b II replaces the expected ii. This b II, instead of proceeding to the dominant, moves in a Phrygian-like cadence to the final Eb, but under the same soprano line that had directed the resolution of dominant to tonic in measure 13-14. In this sense, it acts as a plagal substitution for V. Thus the final Eb section fulfills two functions: it not only contains the first statement of the tonic (m. 14), but this arrival on and in Eb is also closure in the tonic. Example 2.5, Example 2.6, and Example 2.7 show the overall structure of the piece as described above.

Example 2.5 Wir Haben, deep middleground reading
Example 2.6 *Wir Haben*, middleground reading
Example 2.7 Wir Haben, overall middleground reading
Note that I have chosen to deviate from a strict Schenkerian reading in one respect. I have chosen the scale degrees S 4 3 as a fundamental line. Although this choice may be distressing to some Schenkerians, there are a few theoretical possibilities that render this reading not quite as "un-Schenkerian" as one might think. All three notes could be treated as substitutions at the first level. Mixture in the fundamental line would also occur at this first level, as shown in Example 2.8. Here this possibility is shown as two separate steps, although theoretically they could occur simultaneously. Remember also that according to Schenker, an auxiliary cadence, or incomplete form of the fundamental structure, can not be indicated until the foreground. But for our purposes here, in the first level middleground graphs I have put the "imaginary" opening tonic in parentheses.

While, strictly speaking, this may be a plausible possibility, this option does fit this particular piece well. Although Schenker does not discuss substitution at length in *Free Composition*, it is clear that a substituting note is merely filling space that the fundamental tone controls, "even though it is hidden." The implication is that the actual fundamental tone is not available for "contrapuntal action" as it were, in the obligatory register.\(^{42}\) This is not the case in *Wir haben*. Scale degrees 3 2 1 are literally available and on the surface in the obligatory register in every crucial structural window. That is, S 4 3 does not represent or take the place of a missing 3

\(^{42}\)Schenker, *Free Composition*, 51.
\[ \hat{3} \hat{1} \] in the contrapuntal structure; \[ \hat{5} \hat{4} \hat{3} \] supersedes \[ \hat{3} \hat{2} \hat{1} \]. Both lines are available as potential *Urline*, but this analysis chooses to elevate the status of \[ \hat{5} \hat{4} \hat{3} \] rather than \[ \hat{3} \hat{2} \hat{1} \].

**Example 2.8 Wir Haben, substitution reading**
Of course, the simplest way to read this from a strict Schenkerian perspective is that a 3-line, as a leading line, unfolds with an inner voice at the lower sixth creating an accompanying following line. This following line is then transformed into an upper third by register transfer, forming a "covering line" from 3. This is shown in Example 2.9.

Example 2.9 Wir Haben, covering line reading

This type of graph resembles quite closely David Neumeyer's three-part Ursatz, or at least a plausible auxiliary cadence derived from a three-part Ursatz (an excerpt from Neumeyer's example 9, especially relevant to this piece, is given as Example 2.10).4


In our case, this is an overly cumbersome solution, and does not address the relevant issues. In either case, there are three plausible, more conservative Schenkerian-derived possibilities — substitution, a cover line, and a three-part *Ursatz*.** One could easily manufacture a textual connection to support the cover line analysis; with all the repetitions of angels, God, and love, perhaps the "divine" cover line hovers prominently above the "earthly reality" of a structural 3-line. Why even consider rejecting all of these in order to modify an existing theory even more?

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44 Poundie Burstein has suggested to me another possibility that brings this reading closer to a traditional Schenkerian reading (personal communication, May 1997). In an incomplete transference of the forms of the fundamental structure, Schenker himself allows linear progressions from tones other than 3 or 5, and from harmonies other than I, writing that this constraint "would be too great a burden for the synthesis (Free Composition, 88)." But when this incomplete transference is expressed as an auxiliary cadence that spans an entire piece, this constraint is again required. But Schenker's recognition that "coherent" segments of a piece can be represented by an incomplete fundamental structure opens the possibility for alternate fundamental structures.

45 Agawu cautions against such "marriages of convenience" between text and music in "Theory and Practice in the Analysis of Nineteenth-Century Lied," 8-10, although he acknowledges there may be "unavoidable tendencies" to create them.
The line from 5 to 3 has several benefits. The first is that it is a better motivic "fit." (As Richard Cohn has pointed out, this is often a criterion that Schenkerians use when analyzing common practice tonal music, whether they admit it or not.\textsuperscript{45}) Look again at Example 2.7. The connection between the Db and the Gb key areas occurs with a third descent of Db, Cb, Bb, or 5 4 3 in the key of Gb, foreshadowing the structural 5 4 3 in Eb that follows. It is interesting that the 5 4 3 descent in Gb is not coupled with a 3 2 1 descent as it is in the final key of Eb. In fact, in measure 9, Ab (2 of Gb) does not descend to 1 in parallel motion with 4 moving to 3, but instead continues its ascent to Bb, the Kopfton. The combination of these two descents produces a motivic strand that descends a tritone from Db to G. Other examples of this motivic strand are shown in Example 2.11. Note that these are utterly implausible as Schenkerian lines; these are motivic strands that basically sketch the register in which the majority of soprano motion takes place, as well as the linking of both 5 4 3 lines in Gb and Eb.

At (A) in Example 2.10, "Speech" returns on the note G in the introduction, and continues to ascend to Db in the next segment of the piece. At (B), the two descents (necessarily of different status) are linked. Note that this linking coexists with the strand shown at letter (C), which ascends from Db to G. The lines designated by Example 2.10(B) and (C) converge on G in the final Eb section, much the same way that the soprano and bass lines diverged from F to Ab in the introduction. Finally this motivic strand is retraced in the coda. Like many codas, this one reworks many features of the piece as a whole. Thus embedded in the motivic strand in the coda is a


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repeat of the structural descent $\hat{5}$ to $\hat{3}$; although, to be precise, because of the plagal substitution of $b\Pi$ (again common in codas), $\hat{5}$ in this case is actually a passing tone in between $6$ and $4$. But the literal descent $\hat{5} \ 4 \ 3$ is again reiterated on the surface at the cadence, reinforcing its role as a closing gesture.
Example 2.11 *Wir Haben*, motivic strand
This motivic strand from G-D♭ is also an inversion of opening tritone B-F
("we have both a long time been silent") around F#, as shown in Example 2.11; F# in
m. 3 is where tonal harmony begins, and where the text states "suddenly speech has
returned to us." Note that although this kind of information is not typical of
Schenkerian analysis, the motivic strand was identified as such only through
Schenkerian means.

Example 2.12 Wir Haben, inversion of motivic strand around F#

Finally, remember that one of the potential objections to accepting 5 4 3 as
an Ubrlinie was that the structural dominant sounds a little short, and the literal A♭ on
the surface, 4, only lasts for an eighth note; earlier I dismissed this as of no concern
to Schenkerian theory. But looking back at Example 2.5, the fact that the A♭ on the
surface is so short may not be a problem, but rather beneficial. Taking the Ubrlinie
from this example, putting the A♭ in parentheses to reflect its brevity on the surface,
and looking at it from transformation perspective yields Example 2.13.
Example 2.13 *Wir Haben*, interaction of alternate *Urlinie* with transformations

This familiar configuration is a partial realization of the transposition scheme in Figure 2.12, which was generalized in Figure 2.12. Completing the realization of the network results in the addition of one note: **E♭**, the final tonic (see Example 2.14).

Example 2.14 *Wir Haben*, completion of transformation network

Thus by making ♪ short in duration, the structural line acts as a realization at the highest level of the motivic network that pervades the piece. It can even be seen to hold the potential for an imaginary **E♭** tonic existing somewhere outside the piece. But by its very presence, the **A♭** allows this saturated motivic structure to be
comfortably intertwined with a more traditional tonal structure. If a \( \hat{3} \)-line is chosen, this relationship is lost. Thus choosing \( \hat{3} \hspace{1em} \hat{4} \hspace{1em} \hat{3} \) as the fundamental line seems to, as Carl Schachter has put it, "account best for both the large-scale voice-leading and the motivic design."\(^{47}\)

Thus the transformation schemes analyzed earlier have altered the view of the fundamental line; I have chosen a non-traditional fundamental line in order to align it motivically with the pervasive connections yielded by the transformation analysis. And yet, this deeper level motivic *Urliene* would not have been discoverable with transformation analysis alone; the prolongational apparatus of Schenkerian theory was necessary.

2.3 Function Analyses

Some doubt that Schenkerian theory has any use at all, modified or not, in the analysis of this music. Daniel Harrison, speaking of the use of "floating note heads" that populate many Schenkerian graphs of late Romantic pieces, writes, "I take this as a sign that the [Schenkerian] theory underlying the graph—the theory that motivates and governs the analysis—can only be unclear and unhelpful when dealing with this music. Indeed, I think that Schenkerian-oriented approaches often make the analysis of late nineteenth-century music more difficult."\(^{48}\) I share with Harrison the sentiment that the music that unfolds so clearly, richly, and beautifully to my ear is suddenly intractable to my eye when viewed through the lenses of conventional theories. And yet if the theory that is so powerful for common practice tonality seems "unclear and unhelpful" for this music, there is an option besides jettisoning the

\[^{47}\text{Qtd. in Neumeyer, "The Three-Part Ursatz," In Theory Only 10/1-2(1987): 4.}\]

\[^{48}\text{Harrison, Harmonic Function in Chromatic Music, ix.}\]
theory wholesale; one can instead work at making the theory clearer, and extracting from the clarified theory what is helpful. In fact, harmonic function theory and Schenkerian theory are to some degree quite compatible, even dependent on each other.

One important facet of harmonic function theory is that it allows us to examine structures outside of Schenkerian structures; perhaps I should say "encourages," rather than "allows." Schenkerian theory permits the analyst to look broadly, but it makes it awfully tempting to ignore features of the music "outside" of the structure. For example, while I engaged the introduction to Wir Haben in the transformation analysis and commentary, it was woefully neglected in the Schenkerian analysis. Not because Schenkerian theory is completely unilluminating in this case, but because it simply, apart from dipping its toes into the realm of "Schenkerian motives," does not encourage the exploration of material outside the structure (or at least the way that Schenkerian theory tends to be structured and taught in the U.S. does not tend to encourage these explorations).

Reexamining the introduction from a functional perspective allows us to integrate the ambiguous opening material with the fairly clear harmonic structure of the main body of the piece (specifically, Harrison's methodology is used). The descending tritone from B-F can be interpreted in several ways. First, as F moves up to F#, it is tempting to hear it as a chromatic 6-7 (in pitch class terms) motion over the bass, moving up from dissonance to consonance. But in the first measure, B is spelled as C. Aurally, there is no reason for this; it can only be a clue to the pianist, or the analyst, that this could, or even might go down. This is a very tactile cue; I feel my own right thumb itching to go in this direction when I play the introduction. But

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when this is transformed to B♭ in measure 2, the direction is clearly changed. Instead of the lower note of the tritone going down, the upper note is heading up, leading to a new key area. Let us examine the potential resolutions of the opening tritone and their connection to the final tonic E♭. B/C♭ would resolve down to B♭ (♭♭6−♭5); D would move to E♭ (♭♭7−♭1); and F would move down to E♭ and/or up to G to make a full triad; in Harrison's term, it acts as a fairly strong dominant with a subdominant (♭♭6−♭5) inflection. Assuming that the C♭ moves down first to B♭ (like a mirror image of the F moving up to F♯), this would first move through the dominant B♭ and then to tonic. This is shown in Figure 2.13 (remember that the scale degrees refer to final E♭ tonic).

\[
\begin{align*}
&\hat{2} \quad F \rightarrow \text{F} \quad G \quad \hat{3} \\
&\hat{7} \quad D \rightarrow \text{D} \rightarrow \text{E} \quad \hat{1} \\
&\flat 6 \quad C \rightarrow \text{C} \rightarrow \text{B} \rightarrow \text{B} \quad \hat{5} \\
&V \rightarrow I
\end{align*}
\]

Figure 2.13 Wir Haben, relation of opening tritone to final E♭ tonic

Following through the same voice-leading pattern after C♭ is transformed to B♭ requires exchanging the voice transformations of the notes F and B/C♭; now F initiates the voice-leading by moving up, and the other voices move in opposition to it, as shown in Figure 2.14. (This is a very physical, tactile relationship; I can see a composer sitting at the keyboard and playing with these kinds of motions, especially when they lead so easily to triads).
Note that two pairs of scale degree functions are the same (7-1 ; b6-5) in both resolutions; in the motion to Gb, 4-3 replaces the 2-3 that occurs in the motion to Eb, reflecting the different subdominant and dominant inflections. Thus the initial tritone contains (at least) two functional implications, both of which are realized in the piece; moving the Cb down to Bb initializes movement on the dominant side to Eb major as a tonic; and, moving F up to F# initiates movement on the subdominant side to F# minor, respelled here as Gb, the key area before Eb. This relates the opening tritone to the last two key areas of the piece. It also raises the question of how it relates to the first key area, Db. This scheme is shown in Figure 2.15.
B/Cb-minor bears a bVII to I relationship to Db, much as Db bears a bVII relationship to the Eb tonic. (Note that by putting Db at a lower status as V/Gb, the Schenkerian graphs did not encourage exploration of the relationship between Db and Eb.) The transpositions again look familiar; they belong to the network described earlier. While the overall functional relations overlap moving from left to right, so to speak, preserving the T2 of the original network as well as the dominant-flavored left-to-right motion, the transpositions T5 and T9 mirror each other around Db, as shown by the arrows in Figure 2.15. This again reflects the opposition of silence and speech. Note also that the motivic content of the network never seems to include Bb, which was taken to be, and was needed as, the structural dominant in the Schenkerian analysis. This suggests that the structure provided by the network operates independently, with the trappings of tonality acting as tonal sealer to fill in the cracks. It also suggests that a reexamination of the relationship between Gb and Eb, without the mediating Bb, could be fruitful.

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Figure 2.15  Wir Haben, overall transformations and function

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From the Schenkerian point of view, $\flat$III was considered a mediant, dividing the space between tonic and dominant (with mixture) as part of an incomplete fundamental structure. Looking at it from a scale degree point of view, as shown in Figure 2.16, overall the key area $G^\flat$ functions as a $T$ (because $\flat 3$ is in the bass) with a strong dominant inflection. One could argue that the $D$-$T$ discharge from $\flat 7 - 1$ tips the balance in favor of dominant.

![Figure 2.16 Wir Haben, relation of $G^\flat$ to $E^\flat$](image)

If $G^\flat$ is seen in dominant relation to the final tonic $E^\flat$, it can then also be seen as participating as part of the structural dominant that includes $B^\flat$, or at least as bearing the same structural relationship to the final tonic. The relationship between $G^\flat$ and $B^\flat$ is shown in Figure 2.17. The scale degrees themselves indicate mainly $T$ function, but the strong $\flat 6 - 5$ leads to reading $G^\flat$ as $S$ to the $D$, similar to a prolonged cadential 6/4.
But there are other ways to view this $G^b$; looking at the piece as it happens in time, after the tonal instability at the beginning of the introduction, and the prolonged dominant $A^b$ in mm. 4-5, the resolution to $D^b$ sounds in m. 6 sounds like tonic. Granted, this is the only key area that is set in the 6/4 position. But this is not a dissonant 6/4 in the way a 6/4 tends to function in more common practice music. There is no lurking desire to resolve ultimately to $A^b$ as $V/D^b$ major—Rameau's distinction between a fourth and an eleventh is useful here—and after the introduction, this is all the stability required; provisionally $D^b$ can serve as tonic. When the $A^b$ pedal is removed in the second half of measure eight, $D^b$ begins to change, or is transformed, as Deborah Stein aptly puts it, into the dominant of $G^b$.\textsuperscript{51} This is a familiar move in common practice music, especially in codas. When a $b7$ is added to a tonic, a IV, or at least a subdominant, is usually the expected resolution. Thus as we travel through the piece, we hear the relationship between the $D^b$ and $G^b$ sections as I to IV, as Tonic to Subdominant. But there is a change at the $G^b$ section beginning in measure 12, and by measure 13, $G^b$ has been reinterpreted in relation forward to $B^b$, instead of backward to $D^b$. This allows the $B^b$ to $E^b$ motion to be heard as a strong

Dominant-Tonic authentic cadence, especially when it is accompanied linearly by the closing gesture \( \hat{5} 4 \hat{3} \), and followed by coda-like material in \( E^b \). Thus as we listen, the overall functional impression in time is \( T-S-D-T \), even though the opening \( T-S \) and closing \( D-T \) do not refer to the same \( T \) (see Figure 2.18). (I must admit that mm. 12-13 seem functionally confusing to the ear, although it makes perfect sense to my eyes.)

\[
\begin{array}{cccccc}
A^b & D^b & G^b & B^b & E^b \\
D^b: & V & I & IV & \text{?} \\
E^b: & V & I \\
T & S & D & T
\end{array}
\]

Figure 2.18 Wir Haben, alternate function interpretation

2.4 (Hyper-) Hexatonic Analysis

Viewing these functions from a slightly different transformation function perspective lends even more texture to this analysis. Although Brian Hyer's group of \{PL, LP, L\} transformations yields the same sets of triads as Richard Cohn's, Cohn's explicit organization of these triads into hexatonic and hyper-hexatonic systems makes
it easier to engage Riemannian transformation functions in regard to this particular piece.\footnote{Brian Hyer, "Reimag(in)ing Riemann," 101-138; Richard Cohn, "Maximally Smooth Cycles, Hexatonic Systems," 24.} Cohn's Fig. 5, previously given as Figure 1.5, is given again in Figure 2.19 for the reader's convenience.
Figure 2.19 Richard Cohn, Fig. 5, "Maximally Smooth Cycles, Hexatonic Systems..." *Music Analysis* 15/1(1996): 24
Cohn has warned against the danger of overrating trivial hexatonic relationships, especially when each hexatonic system is poorly defined in the music (after all, I, IV, ii, V, I traverses all of the hyper-hexatonic systems, but that does not necessarily make it a significant analytic insight). Bearing that in mind, tracing Wir haben's path through the system, as well as taking into account what we already know, helps explain some of the ruptures and disturbances in this piece, as least in relation to the analytic methods discussed so far. Figure 2.20 shows the path this piece follows through the hyper-hexatonic system. (Note that this is a kind of middleground hyper-hexatonic reading, using the sonorities elevated to structural status by the previous analyses; thus while B-, A^+ and D^+ are fairly directly connected, D^+, G^+, and E^+ are prolonged diatonically, not hexatonically.)

<table>
<thead>
<tr>
<th>hexatonic transformation:</th>
<th>T_4</th>
</tr>
</thead>
<tbody>
<tr>
<td>hyper-hexatonic transformation:</td>
<td>T_1</td>
</tr>
<tr>
<td>hexatonic system:</td>
<td>H_3 → H_0 → H_1 → H_2 → H_3</td>
</tr>
<tr>
<td>triad:</td>
<td>B- A^+ D^+ G^+ F^+ E^+</td>
</tr>
<tr>
<td>pc transformation:</td>
<td>T_9</td>
</tr>
</tbody>
</table>

**Figure 2.20 Wir Haben, hexatonic and hyper-hexatonic relationships**

Each hyper-hexatonic T_1 moves one step clockwise through the hyper-hexatonic system; each hexatonic T_1 moves one triad clockwise within a single hexatonic system; pc transformation refers to the transformation in non-hexatonically
organized pitch-class space. Thus the overall harmonic motion of the piece rotates $T_1$ around the hyper-hexatonic system, achieving closure in $H3$, the system in which it began. But this closure is in $E^b$ major, the hexatonic pole of the B minor the piece began in. Thus the piece achieves closure by returning to the same system, while at the same time retaining the textual opposition between silence and speech through the tension between the hexatonic poles. Note the only suspension of clockwise $T_1$ motion in the hyper-hexatonic system occurs between $G^b$ and $B^b$. Here, motion is within the $H2$ hexatonic system, as $G^b$ major moves $T_1$ to $B^b$ major (it coincidentally moves $T_4$ in pitch class space as well, but these are not identical transformations).

This reinforces the functional hearing proposed in Figure 2.18, because there is a shift in reference as the piece reorients itself within a single hexatonic system. Looking back at Figure 2.14, if the $G^b$ key area had been realized as implied by symmetrical resolutions of the opening tritone, namely as $G^b$ minor, the motion within $H2$ would also have been between hexatonic poles. (I should also point out that both $H2$ and $H3$ are well defined by their hexatonic poles or almost poles, while $H0$ and $H1$ are poorly define by only one triad.) But obviously, $G^b$ minor would be inappropriate at this point of the piece; after speech has returned, why should the second repetition of "Angels" be in minor, while the others are in major? Why change the pattern here; why not continue rotating between hexatonic systems, instead of moving within one?

If this detour within $H2$, if this $B^b$ were removed, the pc transformation would continue at $G^b$, leading us quickly to $C^b$, that is, back to the beginning (see Figure 2.21). Whether this $C^b$ tonic major or minor, it would not support the musical
opposition between silence and speech that has been carefully built throughout the piece. In addition, this move would erase the mirroring of transformations around D♭, as well as lead the background off the original transformation grid.

Figure 2.21 Wir Haben, transformations without B♭

2.5 Conclusion

The transformation network analysis helped to account for the relationships between many different objects at different levels, from the background key structure to surface pitch melodies. Incorporating functional relationships pointed to the mirroring of transpositions around D♭. But at the same time, the transposition scheme did not take into account the dominant B♭ required for a Schenkerian analysis. The Schenkerian analysis did help to sort out the status of different key areas in the body of the piece, while at the same time pointing to the difficulties in negotiating a Schenkerian background, especially between B♭ and G♭. Similar difficulties led to using the transformation analysis to choose an alternate Urtlinie. But apart from
leading to the emergence of the non-Schenkerian motivic strand, the Schenkerian analysis did not meaningfully engage the opening, in effect treating it as "Other" to the body of the piece. But it did generate the chords and key schemes that were chosen to be examined functionally. The functional analysis was quite useful at pursuing the implications of the opening tritones by pointing to B♭ and G♭ as opposing, alternate resolutions. This also helped explain why the D♭ section is marked as different by its 6/4 position, and as a point of reflection for the mirrored transpositions as well as the point of overlap of the b VII-I functions across the piece. Note that most of the analyses encountered difficulties with the G♭ to B♭ motion; it is either skipped, or viewed as an altered version of something else, a shifting point, a point of rupture. The hyper-hexatonic analysis helped view this disjunction more clearly, as a different type of motion within different levels of the same system; as a place where both disjunction in the theories, as well as disjunction between the diatonic and the chromatic, occurs.

Several theoretical questions are raised by examining each analytic method/theory in the context of this analysis and in the context of the other theories. The following chapters will examine each theory in turn, beginning with Schenkerian theory in Chapters 3 and 4, then turning to function theory and cycles in Chapter 5. Transformation theory is used as necessary as a neutral tool to examine the relationships between the two.⁵³

⁵³I use the term "neutral" cautiously. Transformation theory is neutral in the sense that it does not impose an a priori outside hierarchical structure. In turn, this lack of internal structure makes its application more subjective, and in that sense, less neutral. But because it accommodates both diatonic and chromatic systems within the same theoretical framework, it is useful as a mediator between Schenker and function as well as between the diatonic and chromatic.
CHAPTER 3

THEORETICAL IMPLICATIONS: SCHENKERIAN THEORY

The Schenkerian analysis of Wir Haben raises several methodological issues related to Schenkerian theory that will be explored in this chapter. 1) When a piece begins and ends in different keys, it is often difficult to determine the status of the upper voices. In the analysis of Wir Haben, the prominent melodic notes were tied to an incomplete transference of the fundamental structure which interpreted the overall function of the three key areas as $V/\text{b}^\text{b}^\text{b}\text{b}^1 - \text{b}^\text{b}^\text{b}^1 - \text{I}$. But one possibility raised by the functional analysis is an overall $\text{b}^\text{b}^\text{b}^2\text{V}^\text{I}^2$ motion, as shown in Figure 2.15. The implications of this functional reading for the Schenkerian Urline will be examined. 2) The motivic saturation described by the transformation theory led to choosing a non-traditional Schenkerian Urline. The ramifications of this choice will be explored. 3) Because Schenkerian theory requires a structural dominant, the dominant that introduced the final key of $E^\text{b}$ was also taken to be closure in the tonic. Other approaches to this "problem" of the structural dominant, and therefore closure, will be considered.
3.1 Status Issues

In the analysis of *Wir Haben*, identifying the primary melodic tones was fairly straightforward. Interpreting them in relation to the hierarchy required by Schenker was more difficult. Example 3.1 gives several interpretations of the upper line. It is difficult to decide between these interpretations, and the more chromatic a piece is, the more difficult these decisions become. For example, Example 3.1(d) shows a perfectly plausible interpretation of the upper structural voice as a double neighbor figure.

Example 3.1 *Wir Haben*, possible structural line interpretations
But problems arise when this structural voice interpretation is coupled with the functional interpretation of $V/b\text{III} - b\text{III} - I$. Let us first examine the status of the bass. Highest structural status is accorded to tonic, in this case, the final $E^b$ section. The next highest structural status goes to $b\text{III}$, that is, the $G^b$ section, acting as a replacement for $V$. The lowest structural status goes to $V/b\text{III}$, the opening $D^b$ section. This scheme is represented in notation in Example 3.2. (Remember that items existing at the same level can still have status distinctions between them; thus the notation for $G^b$ and $E^b$ are the same, although they do not have the same status.)

$$\text{status: } 3 \quad 2 \quad 1$$

![Example 3.2 notation](image)

**Example 3.2** *Wir Haben*, status of bass, overall key scheme

But compare the status distinctions of these notes to the status given to the structural voice in Example 3.2(d). The final $G$, supported by $E^b$ is given the highest status; this accords nicely with its status as part of the tonic. But the $A^b$ supported by $D^b$ (which controls mm. 6-9) is given higher status as a neighbor note to the final $G$, while the $B^b$ of mm. 10-13, supported by $G^b$, is given lower status as a neighbor of...
A♭ (as a neighbor of a neighbor). This clearly conflicts with the status distinctions created by the functional labels given to the key areas, as shown in Example 3.3.54

Example 3.3 Wir Haben, conflicting status of bass and upper voice

Here is a point where Schenkerian theory and function theory intersect; asserting functional relationships requires asserting explicit status distinctions. Thus choosing a functional designation controls the status of items under the control of those functions. In other words, items in the same functional window have the same status. This condition is implicitly built into Schenkerian theory when dealing with diatonic common practice music, but because it is not explicit, this aspect is often ignored, and therefore lost, in its transfer beyond common practice music.

Example 3.4 shows the structural voices from Example 3.1 with their required functional interpretations.

54 See Stein, Hugo Wolf’s Lieder, for this analysis in the context of directional tonality, especially her example 5-4.
Example 3.4 *Wir Haben*, possible bass and upper voice combinations with status agreement

Example 3.4(a) and (d) show the same functional interpretation, but in Example 3.4(a) the A\(^b\) is a passing tone between B\(^b\) and G, while in Example 3.4(d) there is a gap between the second and last harmonies. Example 3.4(b) is the *Ursatz* chosen in Chapter 1. Example 3.4(c) includes both b\(^7\)VII and V as a dominant, with b\(^b\)III acting within that overall dominant function. All of these examples are possible interpretations of the same sets of pitches. Some are more orthodox than others, ranging from the stricter Schenkerian Example 3.4 to the non-Schenkerian Example 3.4(d) (no structural dominant). Thus explicitly coupling functional
interpretation with Schenkerian voice-leading decisions clarifies the possibilities whether or not an analysis is strictly Schenkerian. (The above possibilities could also be interpreted as directional tonal schemes.).

Looking back at Figure 3.0, choosing to match the transformation $T_2$ with an overall functional relationship of $\bar{b}\text{VII-I}$ would therefore require changing the Urintie of the Schenkerian analysis. In this case, retaining the transformations alone does not require this change.

3.2 Analysis of Nun wandre, Maria

The motivic saturation described by the transformation theory in Chapter 1 led to choosing the non-traditional Schenkerian Urtsatz shown in Example 3.4(b). Let us briefly consider another song by Wolf that is "problematic" according to strict Schenkerian theory – Nun wandre, Maria.\textsuperscript{55} The translation of the text is given as Figure 3.1.\textsuperscript{56}

\textsuperscript{55}Nun wandre, Maria, a Spanish poem by Ocaña, translated to German by Paul Heyse in his and Emanuel Geibel’s Spanisches Liederbuch (1852), set by Hugo Wolf in his Spanisches Liederbuch, #3 (1889).

\textsuperscript{56}Translation by anonymous, Hugo Wolf, Spanish and Italian Songbooks (New York: Dover, 1989), v.
Nun wandre, Maria, nun wandre nur fort. Now journey on, Mary, now journey forth.
Schon krähen die Hähne und nah ist der Ort. Already the cocks are crowing and the place is near.
Nun wandre, geliebte, du klei nod mein, und bald wir werden in Bethlehem sein. Now journey on, beloved, my jewel, and soon we will be in Bethlehem.
Dann ruhest du fein und schlummerst dort. Then will you rest so well and slumber there.
Schon krähen die Hähne und nah ist der Ort. Already the cocks are crowing and the place is near.
Wol seh ich, Herrin, die Kraft dir schwinden; I see well, my lady, that your strength is waning;
kann deine Schmerzen ach, kaum verwunden. ah, it can hardly bear your sufferings.
Getrost! wohl finden wir Herberg dort; Courage! we will surely find lodging there;
schon kräh'n die Hähne und nah ist der Ort. already the cocks are crowing and the place is near.
Wär erst bestanden dein Stündlein, Marie, If your delivery were only over, Mary,
die gute Botschaft gut lohnt' ich sie. I would give a good reward for the glad tidings.
Das Esel ein hie gäb' ich drum fort! I would give away the donkey here in exchange!
Schon krähen die Hähne, komm! nah ist der Ort. Already the cocks are crowing, come! the place is near.

Figure 3.1 Text, Nun wandre, Maria

3.2.1 Alternate Schenkerian Reading

Nun wandre, Maria seems deceptively simple at first. It begins in a clearly
defined key and ends in that same key. There are plenty of dominants in their proper
places; there are no chains of thirds to raise questions about what "counts" as a
structural dominant and what is merely "surface." It sounds like the perfect candidate
for a quick Schenkerian sketch, and then on to the next, more "interesting" or
"challenging" piece. And yet, as soon as the sketching begins, problems arise. If you
attempt an "objective" analysis, working from the "bottom up" rather than the "top
down" (although that is a somewhat problematic notion in and of itself), analytic
decisions quickly become difficult. First, at the point where the Urlinie close should
be (around m. 35), the vocal voice holds a common tone over the harmonic structural
close. On closer inspection, the vocal line operates entirely within the upper
tetrachord of the octave, that is, between scale degrees 5 and 8. Example 3.5,
Example 3.6, and Example 3.7 show successive levels based on this reading. Note that I have chosen \( \hat{8} \) as a Kopfton. Urlinien from \( \hat{8} \) tend to be controversial in and of themselves; this Urlinie is even more problematic because it closes on \( \hat{5} \) instead of \( \hat{1} \).

Example 3.5: Nun wandre, Maria, deep middleground reading
Example 3.6 *Nun wandre, Maria*, middleground reading
Example 2.7 *Nun wandre, Maria*, overall middleground reading
The neighbor note of the first order (F# as a neighbor to the Kopfton E) would be problematic in strictly tonal space. Schenker writes: “In the case of the upper neighboring note can never occur, because it would overstep the bounds of the octave space. As a substitution for 8-9-8, a neighboring note may appear at a later level as an embellishment to the 5.” Schenker is discussing the “octave space” that stretches from scale degrees 1-8. Because this soprano line operates within plagal pitch space, the octave space can be seen to encompass scale degrees 5 to 5. Thus the first order neighbor should be considered 1-2-1, not 8-9-8, and does not overstep its octave space. This 1-2-1 neighbor resides in a place that corresponds to Schenker’s — at a harmonically simple division point. (Schenker favors neighbors on scale degree 5, the authentic division of the authentic octave; Nun wandre, Maria’s 1-2-1 neighbor note occurs at the plagal division of the plagal octave and thereby fulfills the function of a neighbor of the first order.)

_Nun wandre, Maria_, is unusual in several other respects. A melodic line from scale degree 5 up to 8 (the Anstieg, in our case) usually poses difficulties. As Daniel Harrison has noted, the functional pull of scale degree 6 down to 5, coupled with the upward pull of 7 to 8, makes it difficult to cross the divide from 6 to 7. Wolf employs a Dorian mode ascending melodic line. The use of #6 and b7 allows this gap to be crossed quite easily.

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57Schenker, _Free Composition_, 42.
58Harrison, _Harmonic Function in Chromatic Music_, Chapter 2.
Apart from the unconventional *Urlinien*, these sketches look fairly traditional. Issues of modal vs. tonal may be set aside in this context for the following reasons: first, in the Dorian mode, the final is equivalent to the tonic. The key is never in question as it can be when a Mixolydian (G-final or C-tonic) or Phrygian (E-final, problem of diminished dominant, for example) melody is used.\(^9\) Secondly, *Nun wandre, Maria*, contains a mix of modal and tonal entities; the tonal aspects of this piece are more crucial to the discussion here. (Studies of modal pieces, such as Lori Burns' study of Bach's modal chorale settings, have tended to change the bass possibilities of the *Ursatz* and first level middleground, rather than the *Urlinie*; this is the opposite of the issue here.\(^6\))

3.2.2 Traditional Schenkerian Reading

By way of contrast, *Nun wandre, Maria* can also be described as a traditional Schenkerian structure (see Example 3.7 and Example 3.7). The essential form and *Bassbrechung* remain the same, but what had been the plagal *Urlinie* earlier is relegated to the status of inner voice (see Example 3.9). Schenker is not very explicit about inner voices in general; he tends to notate them on the level before he needs them for something else, but his notation is not very systematic.

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\(^6\)Burns posits different *Ursatz* possibilities for Phrygian and Mixolydian on pp. 50-60; and for Dorian and Aeolian on pp. 144-148.
Example 3.8 *Nun wandre, Maria*, traditional deep middleground reading

mm. 1-10

mm. 11-26

Example 3.9 *Nun wandre, Maria*, traditional middleground reading

mm. 27-39
How do these two analyses compare? Each has potential benefits and drawbacks to offer. One immediate benefit of the second, more traditional analysis is that it is validated as a Schenkerian structure. It allows the piece to be included in a select repertoire of canonical music. Perhaps more importantly, it allows an convenient cognitive placing of that piece within a larger context, both stylistic ("diatonic," "Schenker tonal," "lied," "Classic-Romantic") and qualitative ("good", "masterwork"). In other words, we "know how it goes."

3.2.3 Reading using Diatonic Cycle

Let us return to the first, unconventional analysis to determine its benefits. Like the alternate analysis of Wir Haben, this analysis can be seen to assimilate a combination of harmonic and melodic elements. One striking physical and aural feature of Nun wandre, Maria is that the left hand rarely changes position; it is frequently playing successions of parallel fifths. Figure 3.2 shows the sequence of these "parallel fifth" chords, represented by their roots, in the context of the E minor scale. This sequence of chords can be seen as a compositional grid or template for much of the "left hand" of the piece. See, for example, the chord sequence in mm. 1-5, and mm. 9-10. Even when this sequence is broken, as by the neighbor notes in mm. 7-8 (G-F#), 17-18 (Bb -A), and 31-32 (G-F#), these neighbor notes are registrally displaced so that they are "out of the way" of these sequences.
Figure 3.2 *Nun wandre, Maria*, chord movement by fourths in context of E minor scale

\[ \text{T}_3 \text{ occurs between each of these chords; } \text{T}_3 \text{ in this case refers to transposition by three diatonic steps. This can also be represented as a cycle through the diatonic system, as shown in Figure 3.3. This is akin, of course, to the circle of fifths, but backwards as a circle of fourths. Note that because the diatonic scale step, regardless of its “real,” that is, chromatic, size, is taken as a measure, the circle of fourths does not extend beyond a single diatonic key. Now the relationship between each “fourth-related” chord can be describes as } \text{T}_1; \text{ in this case, “transposition by 1” means proceeding clockwise around the cycle by 1. Thus the } \text{T}_3 \text{ relationship between chords in the context of the scale in Figure 3.2 is now viewed as a } \text{T}_1 \text{ relationship in the context of the cycle in Figure 3.3.}^{61} \]

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\[^{61}\text{Unlike chromatic cycles, this cycle must abandon set class consistency in order to remain in the realm of the diatonic (hence the diminished chord on F\#).}\]
Other motions apart from $T_1$ are possible. Moving by $T_2$ through this cycle is shown in Figure 3.4.
Moving $T_2$ through the cycle yields the descending tetrachord E-D-C-B, which is the main pitch space of the soprano line, and which I have suggested as a possible *Urlinie*. (Remember that although the circles look the same, in Figure 3.3, each letter is the root of the chord it represents. In Figure 3.4, the letters represent single notes, but the relationships are the same). Thus the alternate Schenkerian reading has the benefit of nicely accommodating this combination of harmonic and melodic cycles.

One main difficulty with the traditional Schenkerian reading is that it does not seem to reflect the surface of the music very well. That is, the *Urlinie* notes of Example 3.8 not only do not literally exist in the most prominent register on the surface of the music, but they are difficult to find even in the piano part. I essentially postulated them as likely candidates for an *Urlinie*, based on the harmonic progression that is common to both the alternate and traditional readings. The only analytic decision that relied on the surface of the piece was the choice of $\hat{5}$ as the Kopfton. This choice is not necessarily problematic. By means of the concept of substitution, we can posit that a note does not have to be present on the surface in order to “control” what happens there. And yet the traditional reading cannot seem to capture the long progress of the vocal line up to the E, and then past it, to F#, before returning down to B.

This conflict was not as critical in the case of *Wir Haben*. The alternate *Urlinie* $\hat{5} \hat{4} \hat{3}$ can be generated easily from the traditional *Urlinie* $\hat{3} \hat{2} \hat{1}$. (Ironically, the overall harmonic motion is more problematic in *Wir Haben*, as shown by the hexatonic analysis in Figure 2.20). But this issue is more pointed in the case of *Nun wandre, Maria*. Earlier I pointed out that the alternate *Urlinie* was moved to the inner
voice in the traditional analysis. More specifically, the 5-line of the traditional *Urlinie* can not generate the alternate *Urlinie*. It can not be hooked into the traditional structural line by any of Schenker's operations. This means that the alternate *Urlinie* is merely counterpoint in the traditional reading – hence the noncommittal notation in Example 3.9.

Thus in my own talking and writing about these pieces, I find myself tempted to say of the traditional *Urlinie*, “But that just isn’t how I hear it.” Implicit in this statement is the assumption that the *Ursatz* is a some kind of cognitive guide. But earlier I talked about it as a generator. And my desire for the overall structure to correspond to motivic structure led me to choose alternate *Ursätze* for both *Wir haben* and *Nun wandre, Maria.* At this point, one might wonder what use Schenkerian theory in general, or the *Ursatz* in particular, has for these pieces at all. Jeffrey Kallberg encountered a similar situation in his analysis of Chopin’s Nocturne in G minor, which is idiosyncratic with respect to the genre of “nocturne.” He writes:

Works that seem to be anomalous with respect to a genre, that seem somehow to lie on the edge of it, can play a key role in generic studies. Such works expose the flaw behind viewing genre only as a classifying concept. The shared characteristics of the members of a genre can tell us much, but precisely in instances like the Nocturne in G Minor, where the search for common gestures yields a confused picture, we discover that such searches cannot inform us about the meaning of a genre. Unless...we conclude from the lack of the shared elements that the concept of genre itself is worthless, we soon realize that cases where the appropriate responses can not be firmly fixed will figure centrally in our understanding of a genre. For in making us hesitate and waver in our responses, these works can reveal much about what...

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62This is similar to Schenker's reliance on his *Ursätze* as models of motivic replication at all levels. (This is not to invoke the authority of Schenker, but merely to point out how these motivations can lead to specific analytic results).
these responses ought to be and what the real effect of them is in more clear instances of the genre. Marginal works focus our attention on interpretive decisions that ordinarily might pass without notice.\textsuperscript{63}

Simply substitute references to genre with references to the \textit{Ursatz}, and this nicely captures our quandary about the \textit{Ursatz} in examining these songs by Wolf. But it also points to the usefulness of such a task.\textsuperscript{64} This leads to a consideration of what does the \textit{Ursatz} mean? What interpretive decisions ordinarily pass without notice in analyses of more traditional pieces? What does it mean to assert that an alternate \textit{Ursatz} is a viable possibility?


\textsuperscript{64}Other analysts have responded to the “confused picture” yielded by the Schenkerian analysis of late nineteenth-century music in different ways. Much as some dismissed the concept of genre altogether, Daniel Harrison rejects Schenkerian theory for this purpose and turns to function theory instead. Others have responded with hybrid systems (for example, Harald Krebs) and theories of directional tonality, cited above in footnote 41.
CHAPTER 4

ON THE NATURE OF THE URSATZ

The Schenkerian literature is certainly varied on the "Ursatz question;" the Ursatz remains, as William Pastille writes, "an enigma." However, most views of the Ursatz can be placed into four main categories. It should be noted from the outset that to some extent, each category may overlap, extend, or coexist with some or all of the others.

65I consider the "Schenkerian literature" to consist of several different items, including what Schenker said, what Schenkerians think he said, what Schenkerians said, what non-Schenkerians think Schenker said, and what non-Schenkerians said. I have placed these in the same boat, because Schenkerian theory today is Schenker's theories, as well as the history of the reception of Schenker's theories, all bound up in this vast amorphous web that we call "Schenker."


67I am going to ignore the claims for value or historical goal since those claims tend not to be circulated much any more, at least not publicly. For Schenkerian theory as a theory of value, see Nicholas Cook, "Schenker's Theory of Music as Ethics," Journal of Musicology 7(1989): 117-141. For a discussion of Schenkerian tonality as a historical goal, see Saul Novack, "Foreground, Middleground, and Background: Their Significance in the History of Tonality," in Schenker Studies, ed. Hedi Siegal (Cambridge: Cambridge University Press, 1990), 71; qtd. in Michael Russ, "On Schenkerism: A Closed Circle of Elite Listeners?" Music Analysis 12/2 (1993), 277. Interestingly, much Schenkerian work has gone "underground" in recent years, at least in terms of publication. While some revisionist Schenkerian articles have appeared in juried publications, the vast majority of traditional Schenkerian articles have been "self-published" as collections of essays, such as Hedi Siegal, ed., Schenker Studies (Cambridge: Cambridge University Press, 1990); Allen Cadwallader, ed., Trends in Schenkerian Research (New York: Schirmer, 1990);
1) The Ursatz is the first composing out of the chord of nature.

2) The Ursatz is a cognitive guide.
   a) provides general coherence, accessible by most listeners
   b) provides an explicit cognitive guide for the musically gifted
   c) for the most gifted listeners, allows embodiment as music in the chance to live the life of the composition as it is heard, to live the "will of the tones"

3) The Ursatz is an essential structure revealed by reduction.

4) The Ursatz is a generative structure
   a) as primitive(s) in an axiomatic system
   b) as part of an organic or procreative metaphor

Let us briefly consider each of these categories, beginning with the first.

4.1 The Ursatz as the first composing out of the "chord of nature"

This belief stems mainly from Schenker's own writings, and is then repeated by others, whether they agree with this natural foundation or not. For example, Brown and Dempster refer to the belief among Schenkerians that the Ursatz is the first composing out of the chord of nature. John Benoit writes that the "Ursatz represents

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a temporal unfolding of the Chord of Nature." "Chord of nature," in these instances, means "the major triad as manifest in the overtone series." Leaving aside the many "chord of nature" controversies, I will simply point out that Schenker’s reliance on the "chord of nature" is more complex. In Free Composition, Schenker refers to arpeggiation as an outgrowth of the harmonic series, writing:

In nature, sound is a vertical phenomenon [the overtone series]. In this form, however, it cannot be transformed to the human larynx; nor is such a transfer desirable, for the mere duplication of nature cannot be the object of human endeavor. Therefore art manifests the principle of the harmonic series in a special way, one which still lets the chord of nature shine through. The overtone series, this vertical sound of nature, this chord in which all the tones sound at once, is transformed into a succession, a horizontal arpeggiation, which has the added advantage of lying within the range of the human voice....This basic transformation of the chord of nature into an arpeggiation must not be confused with the voice-leading transformations [emphasis added].

But despite his talk of the entire overtone series, Schenker has already limited his "overtone series" to the first five partials as shown in his accompanying Figure 2 (given here as Example 4.1).

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72 Schenker, Free Composition, 10.

73 In Harmony, Schenker limits the overtone series to the first five partials based on the number of fingers on the human hand. This gives him the major triad in an Ursatz-like registral configuration.
Milton Babbitt has pointed out that in order to create a correspondence between the overtone system and common practice tonality, one must make several concessions such as excluding all of the dissonant partials and asserting the primacy of the chordal root. And while the Ursatz may be the first composing out of the chord of nature if the piece being considered is in major, if the piece is in minor, according to Schenker, the composer has to intervene before the composing-out in order to get the minor triad. All of these alterations to the “chord of nature” fall under the category of “art” for Schenker. Schenker is not under the illusion that triadic tonality itself is a natural phenomenon; rather nature provides the raw materials that are then transformed by human genius into art. Schenker’s ideological need for unity and naturalness leads him to foreground this connection, which seems to have lead to its simplification and repetition in the Schenkerian literature.

In addition, this “first” composing out is one of many possible tightly constrained composing-outs. That is, there is no reason that the tonic can not be composed out as easily from \( \hat{8} \) to \( \hat{5} \), or from \( \hat{5} \) to \( \hat{3} \), except that they fail to close on \( 1 \) to fulfill the metaphor of “rest” or “release” that the background is often invested

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with. This in turn assumes that rest or release is always an artistic goal. Thus the 
Ursatz is not merely the first composing out of an already manipulated “chord of 
nature”; it is already invested with the expectation of major and the metaphor of rest.

4.2. The Ursatz as cognitive guide

In the second category, the Ursatz serves as a cognitive guide of various types, 
according to the abilities of the listener. This can range from the claim that the Ursatz 
provides some general organic coherence which makes it easier for a listener to follow a piece, to the more dramatic claims such as those made by Carl Schachter:

[C]omposers create clear and distinct shapes....the more clearly and vividly the listener perceives these shapes, the more fully and deeply he will live the life of the composition as he hears it.\(^{75}\)

This “deep” hearing in turn provides access to the inner life of the composer, 
and a chance to connect the listener’s life to the composer’s. Schenker writes:

In this sense we perceive our own life-impulse in the motion of the fundamental line, a full analogy to our inner life....In the linear progressions the composer lives his own life as well as that of the linear progression. And conversely, their life must be his, if they are to signify life for us.\(^{76}\)

This is a thornier issue; obviously, analysts may hear many aspects of a piece that can be encompassed by Schenkerian theory. Interruptions, closure, structural dominants, and the like are fairly easy to learn to hear in a Schenkerian context. I personally have a bit of nostalgia for this position; I enjoy the process of making


\(^{76}\)Schenker, Free Composition, 4-5.
Schenkerian graphs, and I feel that I really know a piece when I have completed one. But Schenkerian theory is not so overdetermined that it disallows different but theoretically correct readings. If the Ursatz is a cognitive map of the type commonly claimed, we have only our (often competitive) assertions of authority about music, mediated through countless, often unarticulated, other factors, to fall back on. When these analyses are taken for their comparative value, this is not problematic. But when competing analyses vie to be taken as the model of how to hear the piece, or more abstractly, as "how the piece goes," difficulties arise. The theorist making the analytic claim is required to assert a level of musicality superior to that of anyone who disagrees with the analysis. Adopting this model of Ursatz carries with it real authority issues that tend to control the discourse, and often the direction, of the field.

4.3 The Ursatz as revealed by reduction

The third option holds the Ursatz to be an essential structure revealed by reduction. For example, Allen Forte writes:

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77This is certainly not to say that insight has no place in analysis. In fact, if one approaches analysis in order to see "what it does for you" rather than to determine the "correct" analysis or the best way to hear a piece, insight is essential. Unfortunately, most Schenkerian discourse relies on Schenker as an authority figure (see the many essays lauding his musicality as a piano teacher). Even many of Schenker's own less orthodox analytic decisions are either "corrected" (such as Ernst Oster's editorial marks throughout Free Composition), or are justified based solely on his position as a musical authority. Many Schenkerians attempt to replicate this musicality hierarchy. See, for example, the exchange between Neumeyer and David Beach, "Apples and Oranges: Neumeyer's Reading of the Octave Line" In Theory Only 11/5 (1990), 9-17; or William Rothstein, "The Americanization of Schenker Pedagogy?" Journal of Music Theory Pedagogy 4/2 (1990), 295-300.

78These difficulties are compounded by the fact that there are few perception studies that examine "deep" or "structural" listening of the kind asserted here. See Nicholas Cook, "The Perception of Large-Scale Tonal Closure," Music Perception 5/2 (1987): 197-206.
First, a brief word about an essential process: analytical reduction. By reduction is meant the stripping away of the top layer of musical structure so as to reveal the underlying and more essential configurations that represent the large-scale motions of the music. Reducing to deeper levels in this way does not mean that musical elements closer to the surface, such as melodic decorations, are simply discarded. On the contrary, an effective analysis will always be able to incorporate every musical component and relate it to the ‘large-scale view.’ Indeed, without the large-scale view it is not possible to discover meaningful interpretations of detail; nor is it possible to reveal the large-scale structure without careful analysis of detail.

Other Schenkerians argue vehemently against reduction. Schachter counters the reductionist model as follows: “[O]ne can never hope to arrive at a correct view of the background by simply making a ‘reduction’ of the foreground, for example, by eliminating dissonances, chromatics, or non-tonic notes. Without some sense of the background, one can’t begin to understand the foreground.” But informally, we almost always analyze reductively to get to a structure that can generate what we just reduced. More on this circularity in a moment.

4.4 The *Ursatz* as a generative structure

The final option, and probably the most popular with theorists today, is that of the *Ursatz* as a generative structure. Schenker writes:

The fundamental line holds in itself the seeds of all forces that generate tonal life: it is the fundamental line that, together with scale degrees, shows the correct path for all composing out and therefore also for the counterpoint of the outer voices, in whose intervals the union of strict counterpoint and free composition is consummated in such a marvelously mysterious way. It is the fundamental line, too,

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that gives life to motive and to melody....[T]he primal womb of the
fundamental line gives birth to repetitions of a hidden, highest
order.80

However, the generative aspect of the Ursatz is usually couched in more
apparently neutral terms than "procreative urges of the tones." Matthew Brown and
Douglas Dempster have proposed a revised version of tonality based on a generative
model in which Schenker's three background structures and transformation rules
articulate six laws of general tonality given in Figure 4.1.

1. Tonal harmonies are fundamentally triadic.
2. These triads are related hierarchically to a principle [sic] triad, the tonic (I). The
   strongest hierarchi[cal] relationship is between the tonic triad (I) and the dominant
   (V).
3. Chromaticisms are generate[d] by two processes—mixture and tonicization.
4. Tonal lines achieve maximum closure when they arrive on the tonic pitch.
   Melodic lines achieve maximum closure when they descend diatonically by step to T;
   whereas bass lines achieve maximum closure when they leap from V to I.
5. There are no parallel octaves between successive chords.
6. There is an absolute distinction between consonance and dissonance; consonances
   originate in major and minor triads; dissonances arise from motion between
   consonances.

Figure 4.1 Six General Laws of Tonality, Table 5c from Brown and Dempster, "The

Brown and Dempster assert: "The background structures can be understood as
axioms that exemplify the six informal laws in an optimally compact way." Many

80 Schenker, Der Tonwille I (1921), 22; qtd. in Oswald Jonas, Introduction to the Theories of
aspects of this model are attractive: it avoids the circularity often associated with Schenkerian theory, and it recognizes that Schenker's transformations (ubergreifen, octave transfer, and the like) can be viewed as transformations in the mathematical sense of the term. But it still raises nagging questions.

4.5 The Ursatz and Tonality

An interesting aspect of most discussions of the Ursatz is the implicit, if not explicit assumption that Schenker's Ursatz is synonymous with, or even defines, triadic tonality. Felix Salzer writes that the Ursatz: "is the perfect realization of "tonality" expressed through the horizontalization, essentially in two voices, of the tonic." When discussing the tonal plan of Tchaikovsky's Fourth Symphony, Edward Aldwell and Carl Schachter write, "In its avoidance—even contradiction—of a large-scale tonic-dominant relationship, it is scarcely tonal, at least in the traditional sense." Brown and Dempster directly posit it as a theory of tonality, writing, "After all, the composers discussed by Schenker all wrote quintessentially tonal music, whereas Palestrina, Monteverdi, and Stravinsky did not." The only problem with this definition of tonality by example is that Schenker analyzes works by Hugo Wolf beginning in Counterpoint I, and continues in Free Composition. In fact, the Wolf

Blasius, Schenker's Argument, p. 81, approaches the charge of circularity somewhat differently. He writes that Schenkerian theory is not circular because the model (Ursatz) and embellishments (later levels) differ in kind, "the former standing before notation, the latter standing within."


song analyzed in *Free Composition, Das Ständchen*, contains a symmetrical division of the octave. This structure is certainly not accommodated by Brown and Dempster's model; nor is it well-accommodated by Schenkerian theory in general.

More to the point, *Nun wandre, Maria*, with its utterly conventional harmonic background, does not fit either, and can not be tonal (at least according to this model), because of the parallel fifths on the same structural level created by the sequences of fourth-related chords.

In addition, if the *Ursatz* were merely generative, and/or "optimally compact," a 3-line would be enough for a model; all strict Schenkerian foregrounds could be generated from it. But the *Ursatz* is not merely generative, not merely grammar, because it is already filled with specific notes, and specifically *not* filled with other notes, that are constrained by, among other things, ideological and epistemological considerations.\(^5\)

Recently, some work has turned toward emphasizing analysis as a process rather than focusing on its product. For example, some have argued that the value in a Schenkerian analysis should be sought in the actual process of creating or reading the voice-leading graph.\(^6\) But still the emphasis in Schenkerian theory has generally remained on the background as a concrete thing. Arguments arise about whether a piece has a 5-line or a 3-line, if 8-lines "really" exist or are just "surface" or middleground, whether or not a certain dominant really "counts," and so on. One

\(^{5}\) See Blasius' arguments for Schenker's closing of the canon based on epistemological rather than (or as well as) ideological reasons, in *Schenker's Argument*, 100.

\(^{6}\) See for example, Nicholas Cook, "Music Theory and 'Good Comparison': A Viennese Perspective," *Journal of Music Theory* 33/1(1989): 129. Cook also quotes David Lewin, who writes that the products of an analysis are "the ski tracks tracing the poetic deeds that were the perceptions themselves," in "Music Theory, Phenomenology, and Modes of Perception," *Music Perception* 3(1986): 382.
way to shift the perspective on this dilemma is to reconceptualize the background itself as a process rather than a thing—to focus not on what the background is, but on how it becomes. In other words, we need to interrogate the processes and transformations that create the background.  

David Neumeyer approaches this issue in his series of article on the Ursatz, most directly in his consideration of the plausibility of the octave line as a background phenomenon. He writes, "[T]he Ursatz is not the first principle of tonal music: it is the first concrete compositional stage, the first true level of composing-out. Preceding it are the concepts of Tonraum (tonal space available for composing-out) and the natural triad." He then refers to Felix-Eberhard von Cube's depiction of the progress from the overtone series, through the triad, to the Ursatz, shown in Figure 4.2. This leads Neumeyer to posit different possible Urlinie based on a "simplicity" criteria, but without making other criteria explicit. (For example, he extends the tone space to a tenth, leading to the postulation of a 50-line, but requires that all lines end on 1, while at the same time assuming that 1 is equal to 8.) But

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87 Agawu discusses a similar reconception of the art song. He writes, "Perhaps, then, what the model points to is song as process, not product. What is interesting, in other words, is not what song is, but what it becomes in perpetual striving for a concrete mode of existence." Agawu, "Theory and Practice in the Analysis of Nineteenth-Century Lied," 7.


89 Neumeyer, "The Urlinie from 8," 5.

what is missing from von Cube's stages leading to the *Ursatz* is an accounting of what happens between (d) where the mode is determined, and (e) the *Ursatz*. It is this conceptual "gap" between (d) and (e) that must be explored.

*Figure 4.2* Felix von Cube, analysis of Chopin, Prelude in E
a) overtone series; b) *Tonraum* c) & d) dodecaphonic and heptatonic scalar systems; e) *Ursatz* and counterpoint; f) diminutions
4.6 The Ursatz as Process

How could this be done? Let us first imagine the Ursatz as arising from the intersection of several constraints. A model of the traditional Schenkerian Ursatz is given in Figure 4.3. 91

![Diagram of the Ursatz as intersection of constraints]

Figure 4.3 The Ursatz as intersection of constraints

91Richard Littlefield and David Neumeyer approach this difficulty slightly differently. Instead of investigating the processes that create the Ursatz itself, they propose different analytical methodologies or strategies for creating different analyses. For example, one analysis uses a Lewinian skeletal melody, while other analyses privilege melodic shape, “framing” structure, rhythmic/metric placement, or tonal space. (Unfortunately, they analyze a two-part piano exercise by Czerny; it is difficult to imagine how many of these analyses would proceed with a more complex piece.) They also shift the content of the Schenkerian levels, moving the chord of nature to “background 1,” tonal space to “background 2,” and the Ursatz to middleground 1. See “Rewriting Schenker: Narrative—History—Ideology,” Music Theory Spectrum 14/1(1992), 38-65.
Each of the different constraints is seen as included within diatonic tonality. First, a few preliminary remarks about the constraints are essential: "triad" refers to the triad as the pre-compositional material and/or space of a piece; "transformations" refers to the Schenkerian transformations that obtain within the Ursatz, and also between levels. (For now we will rely on the transformations postulated by Brown and Dempster; these are shown in Figure 4.4.)

<table>
<thead>
<tr>
<th>Transformations</th>
<th>Domain</th>
<th>Schenker's Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetition</td>
<td>Single State</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Single Line</td>
<td>DFS par. 125-128, par. 230</td>
</tr>
<tr>
<td>Arpeggiation (Brechung)</td>
<td>Single State</td>
<td>DFS par. 106-112, par. 196-202</td>
</tr>
<tr>
<td>Neighbor Motion (Ne bennote)</td>
<td>Multiple States</td>
<td>DFS par. 113-124, par. 203-229</td>
</tr>
<tr>
<td>Linear Progression (Zug)</td>
<td>Multiple States</td>
<td>None</td>
</tr>
<tr>
<td>Displacement</td>
<td>Multiple States</td>
<td>DFS par. 147-154, par. 238-241</td>
</tr>
<tr>
<td></td>
<td>Single Line</td>
<td>DFS par. 140-144, par. 234</td>
</tr>
<tr>
<td>Registral Transfer ( Hohelegung, Tieferlegung, Koppelung)</td>
<td>Multiple States</td>
<td>DFS par. 135-139, par. 233</td>
</tr>
<tr>
<td>Unfolding (Auszuführung)</td>
<td>Multiple States</td>
<td>DFS par. 236-237</td>
</tr>
<tr>
<td>Motion from an (Untergreifen)</td>
<td>Multiple States</td>
<td>DFS par. 129-134, par. 231-232</td>
</tr>
<tr>
<td>Voice-Exchange (Stimmausch)</td>
<td>Multiple States</td>
<td>DFS par. 102-105, par. 193-195 Harmonielehre par. 38-52</td>
</tr>
<tr>
<td>Reaching over (Ubergreifen)</td>
<td>Multiple States</td>
<td>Harmonielehre par. 136-162</td>
</tr>
<tr>
<td>Mixture (Mischung, Phrygische II)</td>
<td>Single State</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Multiple Lines</td>
<td>DFS par. 236-237</td>
</tr>
</tbody>
</table>

Figure 4.4 Schenkerian transformations, Table 5b from Brown and Dempster, "The Scientific Image of Music Theory," 90.
Consonance/dissonance refers to a definite determination of a pitch's status with regard to a referential structure. One is tempted to extend this concept to include consonant support of the *Urlinie*. But Schenker does not require this condition for his backgrounds (the "unsupported stretch" can include scale degrees 7, 6, and 4); thus we will instead require that the notes of the bass arpeggiation have a consonance above them, and that the first, penultimate and last elements of the *Urlinie* be consonantly supported. In the cases discussed here, the first note is also a member of the final tonic triad. Coupled with the constraint for a linear descending *Urlinie*, this can give rise to the Schenkerian *Ursatz*. "I-V" or "Tonic-Dominant" axis refers to the assumption of a structural dominant that resolves to the structural tonic. (This does not require an opening tonic, and is therefore end-oriented rather than beginning-oriented.) Aside from "transformation of the first element," which will be discussed later, the other terms are fairly clear in their Schenkerian meaning. It is also possible to arrange these items slightly differently. One could include "consonance/dissonance" within "triad," or put "descending *Urlinie*" under "i as goal," but I hope to show that these are independently extricable characteristics of the *Ursatz*. For the sake of clarity, I have also left out some constraints, including, for example, the use of only two voices in the background.

To construct a hypothetical background structure, let us suppose that it has a functional tonic-dominant-tonic progression as a frame. In Schenker's backgrounds the first element and the last element are similar (both are tonics) but not equal (each has a different registral configuration, a 3, 5, or 8, instead of i). This seems to be a

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92 For now, we will assume diatonic tonality and the standard prolongational apparatus.

93 Also inherent in this notion is that each note, and each harmony, has been displaced before its reappearance (or it appears only once, as in an auxiliary cadence).
useful distinction; with its quasi-Hegelian overtones, it captures the idea of musical motion or progress, without adding an additional constraint that couples “rest” only with ̅, as occurs in the traditional Ursatz. Let us add this quality (“transformation of the first element”) to the hypothetical background.⁹⁴ Already this move results in some analytic fall-out. Requiring equivalence rather than equality for the framing elements rules out the background as a neighbor note figure, as Arthur Komar, for example, has postulated for a Bach Cello Sarabande and a Bach minuet, or as Neumeyer has postulated as “incomplete forms.”⁹⁵ This restriction does not mean that a neighboring background motion is theoretically impossible; it simply means that it would not belong to the same class of backgrounds that I am describing.⁹⁶ In essence, I have “pulled out” the constraint that assumes not only that repose is always an artistic goal, but that only ̅ can embody this repose. It is also possible to decouple the notion of repose from ̅, as well. (See Figure 4.5.)

⁹⁴In this sense, this Ursatz can be said to privilege passing motion over neighbor motion. This also situates this Ursatz within the realm of narrative. Richard Littlefield and David Neumeyer write that narrativity requires “goal-directed motion, a transformation of the initial situation, and logical or causal entailment between beginning and end,” in their “Rewriting Schenker: Narrative–History–Ideology,” 39.


⁹⁶Blasius (Schenker’s Argument, 78) describes Schenkerian theory as follows: “We would...assert that this systematization is only plausible when conceived philologically, conceived in terms of a system of filiations in which an implicit genealogical tree of archetypal grammatic forms comes into being between a common original ancestor, the Ursatz, and the multiple texts of the canons.” This metaphor of Schenker as a philological system resonates nicely with the idea of “classes” of Ursätze. However, the metaphor tends to lose its usefulness when it reaches the level of “common ancestor,” which invests the Ursatz with an element of chronological time that Schenker explicitly argued against. I would argue instead that the Ursatz belongs as one of the archetypal grammatic forms, and that the “common ancestor,” to shift to the biological metaphor for the term, is the “primordial soup” of processes that create the background.
As it stands, the background, or the class of backgrounds I have described, would encompass the three traditional Schenkerian backgrounds, as well as the alternate Urlinie I have postulated for Wir Haben and Nun wandre, Maria. (Note that Neumeyer’s ascending Urlinie and his three-part Ursatz would not be included in this model. The ascending Urlinie violates both the “descending” and “octave space” constraints, although it conforms to the “I-oriented” constraint.) In fact, what some Schenkerians would undoubtedly construe as a radical change (removing the requirement to end on I) yields surprisingly few forms of the Ursatz. These are

97 This is slightly more complex than it appears. If the ascending Urlinie is conceived as ÑœÎ, then the I-oriented constraint is violated; if it is conceived as ÑœI, then the octave constraint is violated. See Neumeyer, "The Ascending Urlinie," *Journal of Music Theory* 31/2 (1987): 275-303.
shown in Example 4.2. Letters (A), (B), and (C) are the traditional Schenkerian Ursätze. Letters (D), (E), and (F) are the Ursätze proposed for Wir Haben and Nun wandre Maria, along with another Ursatz that meets these constraints, that from \( \text{\textdegree} \) to \( \text{\textdegree} \). Letters (G) and (H) are not possible given these constraints. Letter (G) violates the obligatory octave constraint by crossing the octave boundary of \( \text{\textdegree} \). (H) has a plausible Urlinie (the same as in (F)), but the Bassbrechung must be treated with care. If \( \text{\textdegree} \) is supported by the dominant, then \( \text{\textdegree} \) is unable to displace \( \text{\textdegree} \) and becomes a passing tone, creating an \( \text{\textdegree} \text{\textdegree} \text{\textdegree} \text{\textdegree} \text{\textdegree} \) line with a lower level third descent from \( \text{\textdegree} \). (Schenker discusses similar difficulties with the \( \text{\textdegree} \)-line.)

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\(^{98}\) This class of Ursätze may have a cognitive basis as well. The Urlinie from all of these (and only these) exhibit the three forces of “gravity, magnetism, and inertia,” which predict their completion to the greatest degree. See Table 1 in Steve Larson, “Scale-degree function: A theory of expressive meaning and its application to aural skills pedagogy,” *Journal of Music Theory Pedagogy* 7(1993): 75.

\(^{99}\) Norman Anderson proposes similar lines as “hypothetical remote-level linear progressions” for the Phrygian mode, although he then rejects all but the line from \( \text{\textdegree} \) to \( \text{\textdegree} \), coupled with a harmonic motion of 1 to 5 in A minor. This results in essentially an interrupted \( \text{\textdegree} \)-line in A minor. See his “Aspects of Early Major-Minor Tonality: Structural Characteristics of the Music of the Sixteenth and Seventeenth Centuries” (Ph. D. diss, The Ohio State University, 1992), especially pp. 225-230.
Example 4.2 Possible Ursatz forms without "i as goal" constraint

There are some other purely Schenkerian objections to these Ursätze. In the proposed 5 4 3 line above, 4 as the 7th of V is a problematic dissonance above the bass, and is unable to express a Stufe. Schenker writes:
The *Stufe* lives in our perception only as a triad. That is, as soon as we expect a given *Stufe* we expect, above all, a triad and not something in the form of a seventh. In this case, the seventh degree is not an *a priori* element in our perception in the same way that the fifth and the third degrees are; rather it is an *a posteriori* element... that we comprehend in retrospect as passing motion or as a means for chromaticism.  

Even one of our modified conditions under the consonance/dissonance constraint requires that the second to last element be consonantly supported. This need not be problematic if consonance in this case is viewed as harmonic consonance.

In other words, a note must be consonant with its functional slot. Others have noted the correspondences between Schenkerian background structures and functional labels. For example, the Schenkerian bass arpeggiation I-V-I is easily translated into a functional T-D-T structure. The first level middleground is either T-S-D-T or T-M-D-T, depending on the structure, and whether or not you count mediant, or *Leittonwechsel* in major, or Klumpenhouwer's revision of *Leittonwechsel*, as separate functions. Thus in the proposed 5 4 3 line above, 4 is no longer a problematic dissonance above the bass because it is "consonant" in regard to its functional D slot. This idea also accords with some 19th-century theory. For example, Gottfried Weber required V7-I for his model cadence, while V-I was only a frequent progression between essential harmonies.

Here the seventh was a crucial part of the cadential dominant slot.

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Thus our hypothetical backgrounds conform fairly closely to Schenkerian requirements. But this is only one possibility; the elements that become the background can arise from specific logical constraints, as I discussed, or from a perceptual or functional or rhetorical map. In a sense the process of creating our hypothetical backgrounds comes close to Benjamin Boretz's "listening reconstructed as do-it-yourself composing."^102

There are many benefits to this approach. First, it brings the cognitive map model closer to the generative model. In other words, it provides a reason to have a 5-line rather than a 3-line. Second, it brings the reduction and generative models closer together. If we view the Schenkerian transformations as mathematical transformations, they can be traced freely in both directions. Thus generation and reduction become reciprocally related from middleground to foreground. But a third benefit is perhaps most fruitful.

Rose Rosengard Subotnik, in her book *Deconstructive Variations*, deconstructs the idea of structural hearing (which I have been calling the "cognitive map" model), showing how instead of being in opposition to medium, it is dependent on medium. She offers an evocative deconstruction, but at the same time, only effects a reversal (which is all she intends to do at that point) and reinforces the dichotomy between


^103 Milton Babbitt comments on this relationship, writing, "The Schenkerian theory of tonal music, in its structure of nested transformations so strikingly similar to transformational grammars in linguistics, provides rules of transformations in proceeding synthetically through the levels of a composition from the "kernel" to the foreground of the composition, or analytically, in reverse." See his "The Structure and Function of Music Theory," in *Perspectives on Contemporary Music Theory*, eds. Boretz and Cone, 20-21; qtd. in Benoit, "An Alternative Model," 23.

structure and style. I, too, wish to further deconstruct this notion, and instead argue that the Schenkerian backgrounds denotes a style of tonality, not a measure of tonality. Superficially, when a piece is said to have a typical Schenkerian background it simply means that there is an Utltnie from 3, 5, or maybe 8, combined with a bass arpeggiation. We have also seen how this is often assumed to be synonymous with or to define "common practice tonality." But it means other things as well. It means this piece is probably not opera. This piece is probably also not an improvisationally-inspired work, modal, a fantasy, chromatic, or imitative, although there have certainly been Schenkerian attempts to bring such pieces into the fold. We also are pretty sure that this hypothetical piece will not be the work of a certain group of composers; it is probably not French. There is, on the other hand, a high likelihood that it is a piano sonata by Mozart. In other words, the undeniable explanatory power of Schenkerian theory has molded not only our analytic canon, but our perception of what counts as tonality as well. Reconsidering the traditional Schenkerian background as a process allows "Schenker tonal" pieces to be seen as a subset of all tonal pieces, as a type of tonality rather as some kind of "tonal yardstick."
But this does not mean completely abandoning Schenkerian precepts. By describing a broader tonality I am by no means including the non-functional generalities that abound in, for example, some of Salzer’s analyses. One must walk the thin line between unnecessarily dogmatic backgrounds and random lines; that is, the choice is not between a 5-line at all cost or “floating note heads.” These new potential backgrounds are still bounded by Schenkerian processes, by Schenkerian transformations. This approach allows us to reach back to the uninterpreted background, to work the transformations without the notes, and then see where and how notes fit in. In this way, the powerful transformational and explanatory apparatus of Schenkerian theory can be applied to a broader range of tonal music, without being encumbered by the theoretical and ideological baggage of the current Schenkerian background.

4.7 Comparative Analysis of Closure in Wolf’s Wir Haben and Brahms’s Der Tod

Let us examine the effect this model of the Ursatz could have on an analysis. Recall from the earlier analysis of Wir Haben that the structural dominant was “misplaced.” Because of its location, arrival in the final tonic E also had to be considered closure in the final tonic. This situation is quite unusual for the standard Schenkerian repertoire; closure usually occurs closer to the end of the piece, with the structural dominant resolving to the final tonic under 2 moving to 1. Material after this closure is usually considered coda. In other words, harmonic, melodic, and temporal closure usually coincide. Thus the temporal aspect of closure is rarely

articulated as an explicit entity. Let us add "closure" as a syntactical constraint to our background (associated with a time-point in the piece, rather than with specific pitches or harmonies), and see how this effects the model of the Ursatz. To this end, two pieces that are "problematic" in regard to Schenkerian closure will be (re-)examined: Wir Haben by Wolf and Der Tod, das ist die kühle Nacht (1886) by Johannes Brahms (hereafter referred to as Der Tod). The text of Brahms's Der Tod is given in Figure 4.6.

An exception to this is that registral closure (closure on I in the obligatory register) is sometimes delayed until the coda. See, for example, Kofi Agawu's analysis of Mozart's String Quintet in C Major, K. 515, in Playing with Signs: A Semiotic Interpretation of Classic Music (Princeton: Princeton University Press, 1991), 80-98. Agawu analyzes the piece from three different perspectives, according to formal, topical, and beginning-middle-end paradigms. Where these perspectives do not overlap is where he finds Derrida's "play." One of these places is in the closure of the registral aspect of the piece. In our present study, by identifying the individual constraints on the Ursatz, it is possible to identify the play within Schenkerian theory itself, as well as between the various other theories employed.

It is undoubtedly strange to encounter a lied by Brahms in a study devoted to Wolf. But the Brahms song serves as an excellent foil for several reasons. First, difficulties in locating Schenkerian closure are readily apparent, involving harmonic and linear closure rather than registral closure. Second, as will be shown by the analysis, altering the point of closure has a radical effect on the background structure; I was unable to find a Wolf song that was at the same time so harmonically clear but provided strikingly different background possibilities. Finally, the Brahms lied (composed in 1886) is contemporaneous with Wolf's lieder, and responds in its own way to the musical issues of the time (although Wolf, as a follower of Wagner rather than Brahms, responded differently to many of the same issues).

Der Tod, das ist die kühle Nacht, a poem by Heine, was set by Brahms as the first of Vier Lieder, Op. 96, published in 1886. English translation is mine.

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Der Tod, das ist die kühle Nacht,
das Leben ist der schwüle Tag.
Es dunkelt schon, mich schläfert,
der Tag hat mich müd gemacht.
Über mein Bett erhebt sich ein Baum,
drin singt die junge Nachtigall;
sie singt von lauter Liebe,
von lauter Liebe.
ich hör es,
ich hör es sogar im Traum,
sogar im Traum.

Death, it is the cool night,
Life is the sultry day.
It is already turning dark, it makes me sleepy.
Day has made me tired.
Over my bed there rises a tree,
there sings the young nightingale,
it sings of true love,
of true love,
I hear it,
I hear it even in dreams,
even in dreams.

Figure 4.6 Text of Der Tod, das ist die kühle Nacht, by Brahms

The first half of Brahms’s Der Tod begins simply enough: six bars of tonic prolongation are followed by a 4-bar chromatic “wedge” figure that leads to the dominant by m. 13. But a problem arises in the second half of the song; it is difficult to determine just where closure should occur. A traditional Schenkerian reading encounters several difficulties. The last phrase of the voice, “sogar im Traum” occurs in m. 26, but only after the final tonic pedal has begun; thus the piece must have already closed harmonically. The last V-I motion, at least in the bass voice, is in mm. 24-25, but is accompanied by a subdominant inflected chord that already contains i; thus the melodic line has either closed earlier, or not closed yet, but it can

111I say “simply” only in regard to the overall harmonic motion. Many details of this first section (the reinterpretation of the diminished seventh chord of V as a CT diminished seventh of I (against its spelling), the “misplaced” tonic and dominant pedals, the implied motion to D-flat in mm. 9-10) all figure prominently in the “problems” encountered regarding closure in the second half of the piece.
not close here. The only place where Schenkerian closure is possible is mm. 17-18, just a little more than halfway through the piece. A traditional sketch of this is given in Example 4.3.\footnote{The tonic resolution is accompanied by its $b^7$, reminiscent of the closing gesture in the Bach C major prelude. Again, this expectation produced by the spelling and bass is thwarted, as B-flat is reinterpreted as A-sharp as part of a CT$^7$ that eventually moves back to I.}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{example4.3.png}
\caption{Example 4.3 Brahms, Der Tod, das ist die kühle Nacht, traditional middleground reading}
\end{figure}

But this traditional Schenkerian sketch violates the “closure” constraint that we added to the Ursatz. There are two other possible places the piece could be considered to close, both of which are closer to satisfying the closure constraint: mm. 26-27, and mm. 24-25. A sketch that shows closure occurring in mm. 26-27 is shown as Example 4.4. (I have conflated several levels here to ease the comparison with the other graphs. Although $b\hat{2}$ is notated here (using a half note) as part of the Ursatz, it can not occur until at least the first level middleground.)\footnote{Proctor argues that $b\hat{2}$ can not occur until a later level in “Systematic Discontinuity in Schenker.”}

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Example 4.4 Brahms, *Der Tod*, alternate middleground reading

This graph forces several changes to the *Ursatz* model. First of all, it does not conform to the consonance/dissonance constraint, under which 2, in its composing-out, is required to be supported by a consonance. Under this same constraint, the bass arpeggiation is required to have a consonance above it at the same level. Here, 2 forms a dissonance (2nd) above the bass at the same level (background); as a result of this, there is no tonic-dominant motion that directly accompanies the linear descent. Note that this does not violate either the independent tonic-dominant constraint or the descending *Urlinie* constraint. But adding the “closure” constraint that produced this graph causes a temporal disjunction of the two, which in turn violates another constraint (that of consonance/dissonance). It is not unusual for an *Urlinie* element to be temporally disjunct from its supporting *Bassbrechung*. A common example is given in Example 4.5.
Example 4.5 Disjunction of Urlinie and Bassbrechung

Here the diagonal line indicates that although 5 is not attained until it is literally supported by iii, it is conceptually supported by I because I is being prolonged until it is displaced by 4 over IV. In other words, 5 is consonant with its functional slot. Returning to our discussion of Example 4.4, 2 is not consonant with its functional slot, which is tonic. One is tempted to modify the model to reflect the temporal interdependence of the V-I axis and the descending Urlinie constraint. Secondly, it can be argued that the first element (E) has not been transformed. Without concurrent supporting harmonic motion, the first note E has not been displaced under the transformation rules, but still "exists" at the end of the piece. This version seems to violate more constraints than are gained with the addition of the closure constraint. Moreover, by violating the consonance/dissonance constraint, which seems to be very important to the Ursatz, it raises the question of whether or

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114One could reconcile this by disregarding the tonic pedal, but because pedals act as an important indicator of the prevailing harmony throughout the piece, I see no compelling reason to do so.
not any of the other constraints obtain outside of this context. In short, this option leads to the least constrained, and therefore the least analytically useful, *Ursatz*.

Positing closure in mm. 24-25 produces the graph shown in Example 4.6.

Example 4.6 Brahms, *Der Tod*, second alternate middleground reading

In this analysis, the melodic descent is coupled with the harmonic close. Recall that an earlier objection to this analysis was that 1 already exists in mm. 23-24, so it can not be resolved to in mm. 25. This can be partially remedied by considering the nature of the chord in m. 23-24. I have put the resolution of the V7 in parentheses in Example 4.6 to show that while the bass clearly indicates a dominant moving to tonic, the right hand indicates a minor subdominant moving to tonic. (In Harrison’s terms, the $\text{b6}-\tilde{5}$ discharge lends an especially strong subdominant flavor, but is in opposition to the (at least) equally strong $\tilde{5}-\text{I}$ motion in the bass.)\(^{115}\) This

\[^{115}\text{The RH chord can also be considered the resolution of the } C^7 \text{ in m. 18.}\]
subdominant is also emphasized by the fact that there is no leading tone, and therefore no 7-I discharge. The mixed function of this chord strengthens the possibility that the C in m. 25 is different in origin than the C that already exists in m. 24. In other words, the C in m. 25 displaces the D of the dominant functioning left hand of m. 24; simultaneously, the C in m. 25 is held as a common tone with the subdominant functioning right hand of m. 24. This voice-leading is shown in Example 4.7.

Example 4.7 Brahms, Der Tod, mm. 24-25, different functions of RH and LH

This interpretation does not alter the nature of the Ursatz as much as the previous option shown in Example 4.7. It does not violate any Ursatz constraint, and includes the new constraint of closure. It does, however, modify the T-D axis constraint, in effect weakening the overall strength of the dominant because of its lack of leading tone. It also requires the acceptance of a multiple-functioning chord. For some, the pure T-D axis is so crucial to Schenkerian theory that any such weakening of the dominant would tip the balance in favor of the traditional Schenkerian analysis given in Example 4.3. But the two analyses can also be seen as exchanging constraints, yielding different views of the piece through a slightly altered lens.
Example 4.7 shows an analysis of Wolf’s *Wir Haben* including the end-oriented closure constraint in the *Ursatz*. In this *lied* the issue of closure is more pointed because there is no D-T close after the final tonic Eb is introduced.

![Musical notation](image)

Example 4.8 *Wir Haben*, alternate middleground reading with closure constraint

Here the exchange of *Ursatz* constraints is clear. In order to consider closure to occur after the final “real” tonic of the piece, bII must be considered as support for 4. Thus the *Ursatz* represented in Example 4.8 exchanges a new constraint, the plagal axis, for the T-D axis. Otherwise, the other constraints on the *Ursatz* remain the same.

4.8 On the Plagal Axis

I have blithely asserted the possibility of substituting the plagal axis for the tonic dominant axis, even though examples of purely plagal structures are rare. Indeed, the plagal cadence possibility given in Example 4.8 can be easily reinterpreted.
as belonging to the coda, as discussed in Chapter 2. While Wolf may have expanded
the use of the subdominant in his songs, this does not automatically relegate
dominants, especially those that occur in the proper syntactical location, to the
“surface.” Thus I do not wish to assert in general that the plagal axis somehow
replaces the dominant axis on a large scale. I merely wish to briefly consider how the
emphasis on the dominant axis, especially through Schenkerian theory, has influenced
the current theoretical view of the plagal axis.

Much of the agreement that the plagal cadence is “weaker” than the authentic
cadence is based on the assumption that a plagal motion can produce only neighbor
motions, and only neighbor motions to scale degrees other than i. Stein’s
examples of plagal and authentic cadences are fairly typical in this regard
(Example 4.9).

\[\text{\textsuperscript{116}}\text{See Stein’s use of the term “foreground authentic cadence” in Hugo Wolf’s Lieder. For example, when discussing a piece that she considers to have a plagal axis, she writes, “[T]he foreground authentic cadences are especially strong right before the final tonic (56).”}\]

\[\text{\textsuperscript{117}}\text{A marked exception to this is Harrison, Harmonic Function. His renewal of dualist theories posits both the plagal and authentic as normative cycles. Unfortunately, he does not give especially good examples of its use as an overall structure for an entire piece. In this regard see Richard A. Kaplan, “Review of Daniel Harrison: Harmonic Function in Chromatic Music,” Music Theory Spectrum 18/1(1995): 124-133.}\]

\[\text{\textsuperscript{118}}\text{Stein, Hugo Wolf’s Lieder, 29-30. See also Neumeyer’s “upper voice formations” in “The Urintie from \(\hat{8}\),” 6-7.}\]
Example 4.9 Voice leading in plagal and authentic cadences, Examples 2-10a, b, and c from Deborah Stein, *Hugo Wolf's Lieder*, 29-30.

Note that even when the possibility of \( \hat{4} \) supporting \( \hat{2} \) is considered (as at c(2)), it occurs within a neighbor note motion (even though it could plausibly support a line from \( \hat{3} \)), and is reported to sound more “authentic” than plagal. It is also interpreted as the “dissonant” part of a \( ii^6 \) chord. Another interesting aspect of Stein's discussion is that the plagal cadences are almost always compared to a dominant axis line from \( \hat{3} \), which is often the favored form of the *Ursatz* for Schenkerians. This emphasis lends these examples the appearance of short chord progressions rather than contrapuntal composing outs. And indeed, this is how IV tends to act in a strict chord-to-chord progression. But that does not mean that it is equivalent to how IV could be composed out. Some lines generated by a plagal axis are shown in Example 4.10.
Example 4.10 Possible linear plagal prolongations

The example at (a) shows $2$ over $4$, which I have interpreted as a IV in the manner of Rameau's added sixth chord (it progresses to I, and the added sixth is necessary for the voice leading) rather than as a $ii_5^6$ (which usually implies a motion to V). This distinction is not as crucial as in the case of $4$ over $5$ discussed earlier, because $2$ is not technically dissonant over the bass here. And whether it is interpreted as a $ii_5^6$ or a $IV^{add}$, $2$ is consonant with the subdominant functional slot that it occupies. Thus many of the same lines that are possible in the D-T axis are also possible in the plagal axis. But because Schenkerian theory has branded them as "weak," only their surface chord-to-chord voice leading structure is investigated, rather than their possible composing outs.
CHAPTER 5

THEORETICAL IMPLICATIONS: DIATONIC CYCLES, CHROMATIC CYCLES, AND FUNCTION

In Chapter 1, we saw how the motion from G♭ to B♭ in Wir Haben was difficult to explain except through the hexatonic analysis, where it was seen as shifting the motion from between hexatonic systems to within a single hexatonic system via a hexatonic pole. This chapter will first examine the use of diatonic cycles in Wolf, and then go on to consider the interaction between function theory, Schenkerian theory, and the hexatonic system (chromatic cycles) in an analysis of Wolf’s In der Frühe, Das Ständchen and Und Steht Ihr früh am Morgen auf.

5.1 Analysis of In der Frühe

Earlier we examined the use of diatonic cycles in the analysis of Nun wandre, Maria. Let us turn now to a much-analyzed Wolf song and examine in greater detail its use of diatonic cycles. The text of In der Frühe is given in Figure 5.1, along with the key(s) associated with each line of text.

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120 In der Frühe, text by Eduard Mörike, set by Hugo Wolf in his Mörike Lieder #24 in 1888. English translation by Stein, Hugo Wolf’s Lieder.
The text depicts two disparate images: a feverish night full of “nightghosts” contrasts with the safety and comfort of day, as signaled by the arrival of sunlight and morning bells. But this is not a simple progression from darkness to light. After the first phrase D minor describing the sleepless night, the sun begins to appear through B minor, and finally “rises” at an the authentic cadence in B major in m. 5. This phrase points to E (minor) through the repeated C-B motions in the bass as B♭ - E, and finally through the brief tonicization of B major by its own dominant, F♯ (here the repetition of major chords seems to point toward E major rather than E minor). But despite the appearance of the sun, the protagonist is not yet able to dispel the visions of the fevered night (or the memory of them), and moves abruptly to A minor in m. 6 (including the same piano accompaniment from mm. 1-2, transposed), as if the Nachtgespenster have temporarily blocked the light coming through the window. This eventually moves to the hinted at E minor in m. 8. But as the protagonist finally turns away completely from the previous night, E minor is transformed to E major in m. 11 (through an augmented 6th chord that resolves directly to tonic). The rest of the piece moves through major keys. While the visual appearance of the day could not be
trusted (perhaps it was merely another torturous night vision?), and therefore led back to despair (and minor), with the additional aural confirmation of the morning bells, the protagonist is able to believe that morning has truly appeared, and turns toward the new day rather than night.

Interpreting the keys according to their textual association and quality (major/minor) yields the overall key scheme shown in Example 5.0. Notes with stems up indicate minor keys and text associated with night; notes with stems down indicate major keys and text associated with day. Thus the B major in mm. 3-5 serves as a dominant that attempts a transition to E major, only to be thwarted by the protagonist’s reluctance to accept visual reality.\(^{121}\) (The piece “works” quite well if you simply cut out mm. 6-10 and go directly to m. 11; its proportions then become not unlike that of Wir Haben.)\(^{122}\)

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Example 5.1 *In der Frühe*, affiliation of keys and text

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\(^{121}\)Note that the slur in Example 5.1 is not a Schenkerian slur in the strictest sense, but rather an associative slur.

\(^{122}\)Proctor, “Technical Bases, 227,” observes the relationship between the motivic material in D and A minor, and between B and E major, and labels these relationships retrograde inversions of each other, although he questions the analytic usefulness of that observation. I think the analytic usefulness comes in aligning those segments with the rest of the piece, rather than isolating those two pairs of keys.
The piece thus divides into two sections, each bounded by E and D. The first half divides this interval by two ascending fifths; the second half divides it by thirds. Since a seventh, unlike the octave, can not be divided by thirds of equal sizes, the size of the third varies. This division by thirds can be interpreted in several ways.

5.1.1 Diatonic Maximally Smooth Cycles

The first interpretation employs the notion of *maximally smooth cycles*, according to Cohn’s criteria. Let us explore a few general issues encountered when trying to construct maximally smooth diatonic cycles. (For ease of comparison, Cohn’s “Northern” hexatonic system is given in Figure 5.2. The reader may wish to refer back to Figure 2.19, where each hexatonic system is a maximally smooth cycle.)

Cohn’s criteria are as follows: 1) the cycle consists of at least four elements “whose initial and terminal elements are identical and whose other elements are distinct”; 2) the passages exhibit set class consistency; and 3) “all transitions
between adjacent chords are maximally smooth: only one voice moves, and that motion is by semitone.¹²³ Cohn discusses cycles in the context of chromatic equal temperament, but, as he alludes to, it is also possible to have diatonic maximally smooth cycles.¹²⁴ Because of the asymmetric nature of the diatonic, these maximally smooth criteria must be somewhat modified for diatonic cycles. The first property remains the same. The third property (maximal smoothness) may be adjusted so that while still only one voice moves at a time, motion is by diatonic step, regardless of its chromatic size (m2/M2). The second property is somewhat problematic. Cohn's maximally smooth cycles postulate the triad (set class 3-11) prior to the scale. In order for a cycle to remain diatonic, the diatonic scale is postulated prior to, or at least at the same time as, the triad. We will return to this condition shortly. A maximally smooth diatonic progression in C major is given in Example 5.2 (this is, of course, a series of descending thirds).

![Example 5.2 Maximally smooth diatonic progression, C major](image)

Example 5.2 Maximally smooth diatonic progression, C major


This series is represented as a cycle in Figure 5.3.

\[ \begin{array}{c}
\text{C+} \\
\text{E-} \\
\text{G+} \\
\text{Bº} \\
\text{D-} \\
\text{F+} \\
\text{A-} \\
\end{array} \]

**Figure 5.3 Maximally smooth diatonic progression, C major**

In Cohn's system, different types of motion through the cycle (co-cycles) yield distinct relationships as follows:

1) Motion by IC1 (essentially moving clockwise or counter-clockwise around the cycle by 1) yields triads that have two common tones and are modally mismatched (C+ and C-, for example).

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125 Because Eytan Agmon uses number of common tones as his major criteria for determining functional classes (as labels, rather than transformations), his circular chart of diatonic chords looks the same as mine, although they serve different purposes. See “Functional Harmony Revisited: A Prototype-Theoretic Approach,” *Music Theory Spectrum* 17/2(1995): 200. This is also a maximally even distribution of thirds within the diatonic. See the discussion in John Clough and Jack Douthett, "Maximally Even Sets," *Journal of Music Theory* 35/1-2 (1991): especially 169-173. Clough and Douthett also discuss the number of common tones between triad and seventh chords that are members of the same diatonic set.
2) Triads related by IC2 have one common tone, and are modally matched.

3) Triads related by IC3 (hexatonic poles) have no common tones, and are modally mismatched.

These relationships are maintained to some extent in the *diatonic cycle*.

1) Triads related by IC1 have 2 common tones, and are modally mismatched (excluding the tritone).

2) Triads related by IC2 have 1 common tone, and are modally matched (excluding the tritone).

3) Triads related by IC3 have no common tones, but are a mixture of 2 modally matched and 5 mismatched.

In order to satisfy Cohn's second criterion of set class inclusion (that is, all major or minor triads), two alterations may be considered: 1) the permissible set classes can be expanded to include diminished triads, or "triad" can be redefined as two sets of thirds (regardless of their size), or 2) the diminished chord on B can be "fixed." The first option is probably the easiest. Because we are limited to the diatonic, there is no danger of multiple possibilities for maximally smooth progressions. In other words, vii° is the only permissible diatonic diminished chord. If diminished chords were allowed in chromatic cycles, additional constraints would be required to determine whether C+, C-, A♭+ was maximally smooth, or whether C+, C-, C° was equally plausible. But this easier solution has a drawback. In

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Romantic music, relevant keys from each cycle tend to be prolonged diatonically, often acting as a main key area; this is impossible to accomplish with a diminished triad. In addition, this cycle is difficult to implement in major, because of the strong pull of B♭ toward the tonic. Thus if one is moving T₁ through the diatonic cycle, it is difficult to get past the fourth element of the cycle.\(^{127}\)

Option 2, or "fixing" the diminished chord, yields two possibilities, both of which involve importing non-diatonic notes into the cycle. The first option is to replace the B⁷ with B♭ to yield a B♭ major triad. This is shown in Figure 5.4.

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**Figure 5.4** Maximally smooth diatonic cycle with non-diatonic root alteration

\(^{127}\)Also, unlike the in chromatic maximally smooth cycle, there are no distinct co-cycles that do not exhaust the entire cycle (because the cycle contains seven members (odd) instead of six (even)). Thus, at least in the music of Wolf, boundaries on the use of the cycle are usually imposed or generated from outside the cycle itself, although the strength of the tritone as a key-defining interval can limit this cycle in major.
While this causes all elements of the cycle to be major or minor triads, it does not eliminate the "blips" created by the "extra" element in the relationships created by different co-cycles. In the strictly diatonic cycle, triads related by IC1 had 2 common tones, and are modally mismatched except for the tritone. In the altered cycle, triads related by IC1 no longer have 2 common tones; the transition from B♭ major to G major has only 1 common tone, and is modally matched. Triads related by IC2 have 1 common tone, except between B♭ major and E minor, which because of the altered B, is no longer a common tone. Triads related by IC3 still have no common tones.

The other possible fix is to replace the F of the diminished triad with F♯ to yield a B minor triad, as shown in Figure 5.4. This yields the same difficulties discussed above. This tactic does have one advantage in that the maximally smooth cycle can be seen as generating the ordered succession of roots, while other transformations may be layered on top of the cycle to change specific chord qualities. Changing the B♭ to B♭ major changes the succession of roots, which may or may not be relevant depending on the piece.

![Figure 5.5 Maximally smooth diatonic cycle with non-diatonic fifth alteration](image)
It remains that the unaltered version of the diatonic cycle does not maintain set class consistency as defined for the chromatic maximally smooth cycle. This can have analytic ramifications, depending on the piece. For example, in the analysis of *Nun wandre, Maria*, I chose to not alter the diminished triad in that diatonic cycle because it appeared on the surface of the piece as a diminished triad, retaining its functional meaning as ii° in minor, and was never a candidate as a key area.\(^\text{128}\) The altered version of the diatonic cycle has the potential for the composing out of each chord in the cycle as an independent key area, but the voice-leading and modal (mis)matching patterns must be altered.

One feature of the diatonic maximally smooth cycle is that it produces root movement by alternating major and minor thirds. Now let us return to *In der Frühe* and examine how it interacts with a maximally smooth diatonic cycle. *In der Frühe* begins in D minor. Figure 5.6 gives a maximally smooth cycle in D minor.

\(^{128}\)In the case of *Nun wandre, Maria*, the cycle was not maximally smooth, but as a diatonic cycle, the issue of set class consistency must still be addressed.
Figure 5.6 Maximally smooth cycle, D minor

Figure 5.6 gives a possible path that *In der Frühe* can be considered to move through (this maps the key areas shown in Example 5.2, excluding B major, which is viewed as the dominant of E).

Figure 5.7 *In der Frühe*, movement through maximally smooth cycle
This view has several benefits. It reinforces the distinction between the keys associated with night (D, A, and E minor), which are connected by T₂, and those associated with day (E, G, B♭ and D major), which are connected by T₁. It accounts for the overall key scheme within the context of one diatonic cycle. It also has several difficulties. The mode of G and the final D is “wrong”; they should be major rather than minor chords. And of course, even though both E minor and E major are prolonged as a type of “pivot tonality” in the middle of the piece, the E represented in the cycle is a diminished chord, which can not fulfill this function. We can alter this E diminished to E minor, as discussed generally above, but we must still apply a mode altering transformation to this E minor as well as G and the final D.\textsuperscript{129}

As the boundary harmonies, both D and E (major and minor) play important roles in the overall structure of the piece. We can also view the overall key scheme as a result of the interaction between the maximally smooth cycles generated by both D and E minor. These cycles are “unwrapped” and rotated for ease of comparison in Figure 5.8. Ovals indicate identical chords, while rectangles show identical roots but different chord qualities.

\textsuperscript{129}Of course, the easiest way to account for these changes of mode is by Schenkerian mixture, positing either the D major/minor or E major/minor, system as the overall tonic. Unfortunately, Schenkerian theory does not help to interpret the root movements that occur.
As E emerges as the important tonality in the middle of the piece, the path of the piece moves onto the E maximally smooth cycle, using A- as a “pivot tonality.” But as the piece moves closer to D, the path again shifts to D’s maximally smooth cycle. This path is shown in Figure 5.9.

Of course, the piece does not end in D minor, but in D major. This D major can be seen as D not necessarily still under the control of E, but D as it was transformed by passing through E; that is, it has become major as a reflection of its contact with E. While this view of the piece neatly skirts the issue of the diminished chord on E in the D- maximally smooth cycle, and captures the importance of D and E as framing boundary harmonies, it does not include the transformation of E minor to E major, or account for its dominant, B+. One way to reconcile this dilemma is to view
the D-cycle as generating the roots of the overall key scheme, while the mode of each key is altered to reflect the mood of the text as it changes over the course of the piece.

5.1.2 Chromatic Function Reading

Let us examine these keys from a chromatic perspective. These are for the most part not hexatonic transpositions, so Brian Hyer's revision of Reimannian transformations will be used, as shown in Example 5.3.\textsuperscript{130}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{example5_3.png}
\caption{Example 5.3 In der Frühe, Riemannian-based transformations}
\end{figure}

These transformations also capture the root movement by thirds that was shown in the maximally smooth diatonic cycle. The RL transformation that transforms D minor into A minor into E minor is equivalent to T2 moving around the cycle in Figure 5.7. This approach also captures nicely the transformation from E minor into E major. (Note that it must “backtrack” through E minor to begin the new set of transformations in the second half of the piece; this reinforces the sense that the E

major somehow stands outside the maximally smooth cycles generated by D minor and E minor). But because these transformations are based on the chromatic rather than the diatonic, the last transformation must be changed to bring it back to D. (If the same transformation pattern continued, the piece would move to D♭ major!)

Thus this piece seems to exhibit the tension between the symmetry of the chromatic and the asymmetry of the diatonic. The roots of the key areas are most efficiently generated using the diatonic, but adjustments have to be made in order to allow each key the opportunity to act as a tonic, and to allow modal alteration to reflect the text. On the other hand, the modal alterations are well accounted for by the chromatically-based Riemannian transformations, but the piece must “hop off” its transformational path in order to remain in its original diatonic set. Interestingly, Example 5.3 shows the opportunity for a fairly clear linear descent from 8 to 5 in D minor, but Wolf gives no indication of this possibility. Instead, he treats each new key as a transposition, tending to give both the vocal and piano parts a literal transposition in pitch space, without any preservation of voice-leading connections. 131 If such a line were present, one could fruitfully explore this structure in relation to traditional Schenkerian theory. This is precisely what occurs in Das Ständchen. We will begin by examining its cyclic structure, and then see how this structure interacts with Schenkerian theory.

5.2 Analysis of *Das Ständchen*

The overall key scheme for *Das Ständchen* is shown in Example 5.3. (A similar scheme is depicted in Schenker’s *Free Composition*, fig. 100.6.c, given previously as Example 2.2.)

![Example 5.4 Das Ständchen, overall key scheme](image)

### 5.2.1 Equal Division of the Octave

This key scheme is, of course, a chain of ascending major thirds. This progression is difficult to relate to an underlying diatonic tonality, due to the possibility of equally dividing the chromatic, but the impossibility of equally dividing the diatonic. As Cohn has pointed out, if we view this progression as a symmetrical division of the octave by equal major thirds, diatonic notation contradicts this intuition in two ways. If these are heard as equal major thirds, notation changes the boundary interval, as shown in Example 5.5a. Maintaining the boundary of the octave requires representing one of the triads as either bIV or #V, and thus as unequal intervals, as shown in Example 5.5(b) (all triads are major).\(^{132}\)

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\(^{132}\)Cohn, “Maximally Smooth Cycles, Hexatonic Systems,” 9-12; especially his example 1, p. 10.
Thus to be understandable in terms of the diatonic, there must be some kind of
enharmonic reinterpretation. Locating exactly where this reinterpretation occurs is
difficult. Cohn writes, “The enharmonic shift can’t be located; it occurs everywhere,
and it occurs nowhere.”*^ Lewin suggests that by dividing musical space at once
evenly and unevenly, these motions induce a kind of musical vertigo. ^ Locating this
shift also seems to induce vertigo in the theories that try to explain this phenomenon.
Schenker seems to view the problem as of one of notation only, and posits an
enharmonic reinterpretation occurring at F#, which is reinterpreted as Gb before
moving to Bb. (In his analyses of chains of major thirds, Schenker tends to preserve
the diatonic relation between bVI and I). Stein posits the reinterpretation, in essence,
before the F#, discussing the possibility of an overall diatonic functional
interpretation of I b IV b VI I, and arguing that a chain of major thirds can be viewed

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^ David Lewin, “Amfortas’s Prayer to Titurel and the Role of D in Parsifal: The Tonal
as plagal elaboration of the tonic. In direct opposition to this, Eytan Agmon argues that while III* can assume a tonic or dominant function, it is excluded from the subdominant function. Cohn disentangles the chain of major thirds from function theory entirely, and they form the basis of his hexatonic system (the chords in Example 5.4 are IC2-related in the hexatonic).

Schenker viewed III(®) as a “divider,” dividing the space between I and V as equally as possible in the diatonic. In this case, III’s function is simply “divider,” not tonic or dominant. It exists to traverse the space between dominant and tonic, or in the case of (b)VI, between I and IV. III® can also be viewed as symmetrically dividing the space between I and bVI, in effect acting as a chromatic “divider.” Similarly, bVI can act as a divider of the space between I and III®, as shown in Example 5.6. In this case, the boundaries of the space retain their diatonic functions, but the dividing motion within that space is chromatically generated.

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135I find this interpretation, while intriguing, quite problematic. First, “bIV” has no defined meaning in a diatonic context. By no common mechanism can this chord be generated (such as by mixture or tonicization), and therefore be seen to belong to the same key. Nor does Stein posit a new mechanism to account for this relationship (unless enharmonic transformation is somehow to be counted as a diatonic transformation). Only scale degrees that support alterations of themselves, but preserve their functional scalar identity may support altered version of the same functional chord (namely II, III, VI, VII, and their altered versions). This limitation excludes chords built scale degrees 3, 5 and 6, which are common to both major and minor. Thus this bIV is already generated by the 12-tone chromatic, and lies outside a functional “IV” label. Second, this interpretation seems to be the result of the need to see embellishments and plagal relations as somehow “weaker.” Thus due to the common tones between I and III®, III® is seen quite plausibly as a type of embellishing neighbor to I; but because it is merely embellishing, it can not be given full status as a dominant (neighboring dominants are, of course, quite common), and is therefore relegated to the plagal.

Example 5.6 Equal division of the octave as a chromatic divider of the minor sixth

Although Harrison does not explicitly explore chains of thirds abstractly, his chromatic scale degree theory is quite illuminating. Figure 5.9 shows the chain of ascending major thirds as represented by their scale degrees (in this case, the first chord is considered tonic, although other interpretations are possible).

\[
\begin{align*}
\hat{5} & \rightarrow b\hat{6} \rightarrow b\hat{6}^S \rightarrow T \hat{5} \\
\hat{3} & \rightarrow \hat{3} \rightarrow \hat{3}^M \rightarrow b\hat{3} \rightarrow M \hat{3} \\
\hat{1} & \rightarrow \hat{1}^D \rightarrow S \hat{1} \rightarrow \hat{1} \\
I & \rightarrow III^\# \rightarrow ^{b}VI \rightarrow I \\
T & \rightarrow T \rightarrow S \rightarrow T
\end{align*}
\]

Figure 5.10 Ascending chain of thirds, scale degree interpretation
Although all scale degrees participate in functional discharges, agents (the thirds of I, IV, and V) must move in any progression involving a change of function. This is indicated by the arrows in Figure 5.10. “M” represents a change of mode. One result of this interpretation is that there is no change of harmonic function between I and III#. But III# is a complex chord, combining b6, the subdominant agent, 3, the tonic agent, and 7, the dominant agent. Thus the three most harmonically potent tones are assembled in this chord. Since there is no motion of agents from I to III#, the overall tonic function is maintained. But at the same time, this chord acquires potential dominant and subdominant charges, as well. It is the dominant to subdominant that discharges through 7-1 as III# moves to bVI. A dominant to tonic discharge is also a possible interpretation, but coupled with the b6, an overall subdominant interpretation seems more likely (though this could be altered compositionally by placing changing the registration). This subdominant then discharges on tonic as b6 moves to 5, and the tonic chord is regained. While a chain of descending major thirds essentially reverses the scale degrees, the harmonic interpretation is quite different, as shown in Figure 5.11.

137Harrison, *Chromatic Function*, 91.
In this case, there is no change of function until the third chord; at this point both subdominant and dominant charges have been sequentially acquired, and both discharge simultaneously on the tonic in what Harrison terms a "double barreled discharge." (The static accompaniment weakens the discharge by anticipating the resolution to tonic.)

This can be related in two ways to the theories described earlier. Both Figure 5.11 and Figure 5.11 support the "third divider" interpretation shown in Example 5.6 (although the Example 5.6b must descend or be read backwards). In addition, the way that each chord accumulates a subdominant or dominant charge can be seen to align these progressions with standard common practice progressions. Figure 5.11 shows the gradual accumulations of first the subdominant charge, then the dominant charge, which both discharge to tonic; this can be seen as analogous to a I-IV-V-I progression. Perhaps analogous is not the proper word. Rather, it can be seen as a reference to, or a shadow of, the traditional progression. Similarly,
Figure 5.10 can be seen as a reference to a plagal I-V-IV-I progression. This all, of course, hinges on the ability of a scale degree to somehow maintain its role in its original key, while at the same time requiring significant enharmonic reinterpretation ($\#5=b\hat{7}, \#2=b\hat{3}$, and so on).

Let us now return to Das Ständchen. The text is given below as Figure 5.12.\(^\text{138}\)

\begin{table}[h]
\centering
\begin{tabular}{ll}
\text{Auf die Dächer zwischen blassen Wolken schaut der Mond herfür,} & \text{Between pale clouds the moon peers on the rooftops,} \\
\text{Ein Student dort auf der Gassen} & \text{A student there in the street} \\
\text{singt vor seiner Leibsten Tür.} & \text{sings before his sweetheart's door.} \\
\text{Und die Brunnen rauschen wieder} & \text{And again the fountains rush} \\
\text{durch die stille Einsamkeit und} & \text{through the silent solitude,} \\
\text{Und der Wald vom Berge nieder,} & \text{And the trees of the mountains bend,} \\
\text{wie in alter, schöner Zeit.} & \text{as in former happy times.} \\
\text{So in meinen jungen Tagen} & \text{Just as in my young days} \\
\text{hab' ich manche Sommernacht} & \text{had I also many a summer night} \\
\text{auch die Laute hier geschlagen} & \text{plucked the lute here} \\
\text{und manch lust'ges Lied erdacht.} & \text{and invented many a joyful song.} \\
\text{Aber von der stillen Schwelle} & \text{But from the silent threshold} \\
\text{trugen sie mein Lieb zur Ruh',} & \text{has my love been borne to her rest.} \\
\text{und du, fröhlicher Geselle,} & \text{And you, merry youth, sing on,} \\
\text{singe, sing' nur immer zu!} & \text{sing on forever!} \\
\text{sing' nur zu, immer zu!} & \\
\end{tabular}
\caption{Text of Das Ständchen}
\end{table}

5.2.2 Hexatonic Analysis

The overall key areas can be portrayed quite convincingly by a hexatonic analysis, moving T4 through Cohn's southern hexatonic system, as shown in Figure 5.13.

5.2.3 Other Divisions

This idea of symmetrical motion is also interesting in relation to the piano introduction. The open fifths on G, D, and A in the left hand in mm. 1-5 seem to set the scene for the piece by representing the minstrel strumming the lute (Example 5.7)
It is an unusual beginning in several respects: first, Wolf's text painting is usually not so literally referential on the surface; second, the opening fifth on G seems to have very little to do with the rest of the song. The G and A surround the tonic D at equal intervals, both abstractly as well as temporally and registrally in the bass (as, of course, the names dominant and subdominant imply). This is shown in Example 5.8.

Example 5.8 Das Ständchen, tonic surrounded in introduction

What I have been representing as a unidirectional arpeggiation of major thirds can also be seen as dividing the space of these fifths on either side of the tonic, while at the same time being contained by them, as shown in Example 5.9.

Example 5.9 Das Ständchen, relation of overall key areas to introduction
In this sense, the choice of main key areas always remains within the confines of the opening fifths, as the protagonist's memory and experience are contained within the strumming of the minstrel. (In addition, the only time G seems to be relevant is in the last 5 bars as a plagal motion to I, articulated by a G-B\textsubscript{b}-D-F\# moving to I.)

5.2.4 Interpolated Dominants and Voice Leading

But this overall symmetrical key scheme is not quite straightforward. As shown in Example 5.9, the chain of major thirds that describes the main key areas is interrupted by dominants after its second and third elements.

Example 5.10  *Das Ständchen*, key areas with interpolated dominants

While the movement from I to III\# is rather abrupt, the other members of the chain are (at least) tonicized. These tonicizations can be interpreted as nested $b$ VI-V motions as shown in Example 5.11.\textsuperscript{139}

\textsuperscript{139}Stein gives an analysis of this piece in *Hugo Wolf's Lieder*, 93-97. Although she discusses the reinterpretation of B\textsubscript{b} as $b$ VI, she interprets the overall structure, especially the role of III\#, differently from me.
Example 5.11 *Das Ständchen*, nested $b$ VI-V-I relations

Thus the overall Schenkerian motion is I-$b$ VI-V-I, but $b$ VI is tonicized by its own $b$ VI-V-I motion. Example 5.11 also shows two potential *Urlinie*: $\hat{5}$ $\hat{7}$ $b$ $\hat{6}$ $\hat{5}$, or $\hat{3}$ $\hat{2}$ $\hat{1}$, with $b$ $\hat{3}$ as a result of mixture at the first level. (Note that neither a $\hat{5}$-$\hat{1}$ nor a $\hat{5}$-$\hat{3}$ line is possible—there is no place to descend from $\hat{5}$ to $\hat{3}$.) The choice of *Urlinie* has an interesting effect on the overall harmonic interpretation. Choosing the $\hat{3}$-line fits best with the overall Schenkerian interpretation. In this case, the $b$ VI-V-I/$b$ VI is clearly subsidiary and occurs at much later level than the overall structure which is shown in Example 5.12.
Example 5.12 Das Ständchen, deep middleground, 3-line

This option is a fairly standard Schenkerian structure (although b VI is not allowed as support for an Urlinie tone at the first level middleground). It represents the piece from the vantage point of the enharmonic transformation of III♭ = b VI/b VI having already taken place. But it tends not to account for the abruptness of the move from I to III♭ before it is reinterpreted. Choosing the Urlinie from 8, on the other hand, simply has more notes to support, and therefore has more “content” at the same level than the 3-line (Example 5.13).
In this version, the two instantiations of $\flat$ are tricky to interpret. The $\flat$ could be seen as a passing tone between $\flat$ and $b\,\flat$, but this interpretation would require giving priority to a non-diatonic event over a diatonic event. The $b\,\flat$ could be seen as a passing tone between $\flat$ and $b\,\flat$, but in this case it is a very necessary passing tone. It fills what would otherwise be an augmented second from $\flat$ to $b\,\flat$, which as discussed earlier, tends to emphasize the gap between $\flat$ and $\flat$ rather than create a line that connects them. Thus both $\flat$ and $b\,\flat$ are interpreted as filling the functional "$\flat$" slot. Given this Umline, the III is necessary as consonant support for $\flat$, and is thus represented at a higher level. In addition, the F major triad supporting $b\,\flat$ would be interpreted as $b\,\text{III}$ closer to the background level, and as $V/b\,\text{VI}$ more locally. In this
case, the movement from III# to b VI occurs through modal mixture rather than through enharmonic reinterpretation (see Example 5.14).  

\[ \text{Example 5.14} \quad \text{Das Ständchen, deep middleground,} \]
\[ \text{8-line with mixture} \]

This solution captures the sense of the abruptness of III# as a displacement of I/8. It also has the benefit of replicating the motivic descent from 8 to 5 that occurs in the first presentation of the tonic. Moreover it emphasizes III as a division of the space between I and b VI, much as the text of this stanza uses the unchanging images of nature as a link between the present experience of the minstrel and his memories. But it also forges a link between the thirds of the hexatonic analysis and the dominants of the Schenkerian analysis. Looking again at the scale degree interpretation of the chain of major thirds (Figure 5.10 and Figure 5.11), one voice leading consequence is obvious: no linear progressions are possible using just these chords; only neighboring

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140 See the discussion of mixture and the “complete major-minor system,” in Matthew Brown, “The Diatonic and the Chromatic in Schenker’s Theory of Harmonic Relations,” especially Table 4.
motions are possible. Thus in order to have any Schenkerian lines, other chords, in this case dominants, must fill in the gaps between voices. Without the intervening \( b^{\text{III}} \) (or \( V/b\ VI \)), the \( 7 \) in Example 5.11 would have to return to \( 8 \) as a neighbor figure. Interestingly, the line from \( 8 \) does not require the structural dominant for its completion. Similarly, the line from \( 3 \) shown in Example 5.12 does not require the intervening \( b^{\text{III}} \) (or \( V/b\ VI \)), but it does require the structural dominant. Without the structural dominant, \( 3 \) would be unable to descend to \( 1 \) and would simply change modal inflection. While a three-part structure is usually not necessary, in this case, it seems fruitful to consider the interaction of all three of these parts as essential constituents at a background level.

5.3 Re-analysis of Wir Haben

A similar use of an interpolated chord within a third relation occurs in Wir Haben. Recall that the transformation analysis was the same as the alternate Ursatz (refer back to Example 2.13), but only with the \( 4 \) of the \( 5 \ 4 \ 3 \) line conceptually put in parentheses. This tactic results in a gap in the Urlinie. The dominant before the final E\( ^b \) section was considered harmonically necessary for the Schenkerian reading; indeed, it is also required to make the linear descent of the Urlinie possible. Example 5.15 shows the interaction of the transformation scheme and the Schenkerian reading.
Example 5.15 *Wir Haben*, interaction of transformation and Schenkerian readings

5.4 Analysis of *Und Steht Ihr früh am Morgen auf*

Let us finally turn to a piece that employs third relations without interpolated chords. The text of *Und Steht Ihr früh am Morgen auf* is given below as Figure 5.13.\(^{141}\)

---

And you rise early in the morning from your bed, you drive the clouds from the heavens, you lure the sun to those hills, and cherubim vie to bring your shoes and clothing.

Then when you go to holy mass, all people are drawn to go with you, and when you approach the blessed shrines, the lamps are kindled by your glance.

You take holy water, make the sign of the cross, and moisten your white brows, and bow and bend your knees—O how radiantly it all becomes you!

How gracious and blessed has God given you, the crown of beauty you have received!

How gracious and blessed you travel through life; the palm of beauty having been given to you.

Figure 5.14 Text of Und Steht Ihr früh am Morgen auf

Example 5.16 shows the overall structure of the piece:

Example 5.16 Und Steht Ihr früh, overall structure

142Compare the analysis by Stein, Hugo Wolf’s Lieder, 103-109 and 134-137.
An ascending chain of major thirds is cycled through twice. C is then prolonged through its dominant moving to its subdominant. The chain then begins to descend, as G♯ (Ab) is approached through its subdominant moving to its dominant. E is then arrived at through its dominant, followed by a traditional I-IV-V-I in E major. Thus the first two cycles ascend through major thirds, but when this chain reverses and begins to descend, the individual third-related harmonies are prolonged in an increasingly diatonic fashion, culminating in a full traditional Schenkerian structure in E major.

5.4.1 Hexatonic Analysis

Initially, it would seem that the best way to represent the first two cycles of thirds is hexatonically, as shown in Figure 5.15.

\[
E↑\xrightarrow{T_4} A♭ ↑\xrightarrow{T_4} C↑\xrightarrow{T_4} E↑\xrightarrow{T_4} A♭ ↑\xrightarrow{T_4} C↑
\]

Figure 5.15 Und steht Ihr früh, hexatonic analysis

5.4.2 Added Seventh and Function Analysis

But this cycle is slightly different from the others we have examined. A seventh is added to each of these triads, implying resolutions to A, Db, and F respectively (at least visually). But until m. 18, each time the seventh occurs it
resolves as part of an augmented sixth moving to the fifth of the following chord, providing an opportunity for the linear connection of voices which does not exist when only triads are used (Example 5.17).

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{example-5.17.png}
\caption{Example 5.17 \textit{Und steht Ihr früh}, resolution of augmented sixths}
\end{figure}

Surprisingly, in mm. 19-20, at the last occurrence of C major, the A\textsuperscript{b7}, with its seventh G\textsubscript{b} respelled as F\#, resolves as a traditional German augmented sixth chord to V\textsubscript{5}\textsuperscript{8-7} of C. This transformation initiates progressively more diatonic prolongations as the chain of thirds reverses its direction. In the final stanza, the E\textsuperscript{7} that had previously resolved as an augmented sixth chord now resolves as a dominant, moving to IV (A) as part of an overall I-IV-V-I in E major.

Thus adding sevenths to the major third-related triads creates expectations of resolutions that are not normally present within such a chain. This feature, coupled with the repeated chain of thirds followed by traditional diatonic harmony at points corresponding to each segment of text suggests the possibility that the chain of thirds
is used analogously to the diatonic I-IV-V-I progression. As shown previously in the scale degree analysis in Figure 5.10, a chain of ascending major thirds contains little harmonic motion, and can be interpreted as an overall T-T-S-T structure with a small dominant to tonic discharge between the second T and the S. Adding sevenths to this configuration is shown in Figure 5.16.

The addition of the seventh to the second chord changes the overall harmonic function pattern to TDST. After the last chain is completed at C major in mm. 21-23, this overall harmonic motion is made explicit diatonically, as C is prolonged by moving from its dominant to subdominant (Example 5.18).

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14 Stein also considers this possibility, although for different reasons, in Hugo Wolf’s Lieder, 103-109 and 134-137.
Example 5.18 *Und Steht Ihr früh*, mm. 21-23

This pattern is abruptly reversed within G#/A♭, as the chain of thirds descends rather than ascends, in a diatonic rather than chromatic context (Example 5.19).

Example 5.19 *Und steht Ihr früh*, mm. 24-26
As shown previously in Figure 5.16, a chain of descending major thirds is close harmonically to TSDT (although it is somewhat weaker). As discussed above, the final section in E major (mm. 30-41) then realizes the strongest version of TSDT as I-IV-V-I.

Thus the use of sevenths emphasizes the potential for the chromatic chain of major thirds to allude to diatonic progressions, and to provide the opportunity for linear motion. This allusion to diatonic progressions is then made increasingly concrete through its reversal in a diatonic context in the second half of the song. Here again, diatonic references act as a tonal sealer for chromatic processes in the first half of the song; by the second half, the diatonic references have become concrete.
CHAPTER 6

CONCLUSIONS

Because many of Hugo Wolf's songs straddle the boundary between diatonic and chromatic tonality, examining them has been useful for exploring not only the diatonic and chromatic processes themselves, but also the analytic theories that are used to define and describe them. This final chapter will first present an overview of the results of the analyses. Second, it will consider the ramifications of reconceptualizing the Ursatz as a set of articulated constraints, as well as explore a previously ignored question: the relationship between the equal division of the octave and traditional Schenkerian theory. This leads to a new consideration of "dividing" as a transformation in both diatonic and the chromatic contexts.

6.1 Overview of Analytic Results

The foregoing analyses have shown that diatonic and chromatic processes can operate independently, not necessarily at different levels of the same structure, but as different structures. Compare, for example, the diatonic acting alone in the utterly conventional I-IV-V-I ending of Und steht Ihr früh am Morgen auf, to the chromatic acting alone as the source of the key areas (I-III# VI-I) in Das Ständchen. But more often, the points of intersection and tension between the diatonic and chromatic are
fruitful as both a compositional and analytic resource. Points of intersection manifest themselves in two main ways: 1) where distinct chromatic and diatonic processes and entities intersect; and 2) where traditionally chromatic transformations are translated into a diatonic environment. Examples of the former include the following: 1) In *Das Ständchen*, which has a chromatically-generated chain of major thirds as its key area structure, interpolated diatonic elements (in this case, secondary dominants) provide the necessary tonal sealer to make linear motion, and therefore an *Urlinie*, possible. Similarly, in *Wir Haben*, the “structural” dominant interpolated between the final major third relation allows the *Urlinie* to close. 2) In *Und steht Ihr früh am Morgen auf*, adding sevenths to the triads of major third chains not only creates more linear motion, but thereby strengthens (and in some cases, causes) the traditional harmonic function patterns that can be seen as analogous to the explicitly diatonic tonal progressions that are eventually realized. 3) In *In der Frühe*, the diatonic and chromatic intersect within the chords themselves. A diatonic cycle generates the roots of the chord sequence, but the quality of the chords can be described best by chromatic processes.

Chromatic processes include transformations and manipulations (such as inversion, transposition, and cycles) that are traditionally thought to occur in pitch class space, but occur in diatonic space.144 Examples of these manipulations in the foregoing analyses include the following: 1) the motivic network of transformations permeates *Wir Haben* at many different levels; 2) the overall key scheme of *Wir Haben* (Figure 2.10) is essentially a matrix; 3) *Nun Wandre* employs different

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144I use the term “traditionally” cautiously, from a twentieth-century point of view; obviously, Wolf did not extrapolate backwards from twentieth century 12-tone techniques. But these are, for the most part, transformations that rely on a 12-note equal-tempered scale, even though they are often applied in a diatonic environment.
transpositions through its diatonic cycle for both its harmonic and melodic motion;

4) *In der Frühe* alters its diatonic cycle to maintain set class consistency through avoiding the diatonic diminished triad. Further research into this area, including sketch studies, would be fruitful.

The interplay between the diatonic and the chromatic also causes a reassessment of the traditional theories used, including reevaluating the nature of the *Ursatz* in Schenkerian theory. This reevaluation is mainly due to questions about its applicability in the non-traditional, but mainly diatonic, environments of *Wir Haben* and *Nun wandre, Maria*. Although we have not explicitly addressed the issue of applying Schenkerian theory to the chromatically-generated chains of major thirds yet, it proves quite useful for articulating linear motions that exist, especially, for example, when a chain of major thirds is mediated by diatonic elements (for instance, see Example 5.15). On the other hand, when a chain of major thirds is not mediated by diatonic events, Schenkerian theory can be used, but it is not very instructive.

Consider the chain of thirds given in Example 6.1.

**Example 6.1 Ascending major thirds**
First, there is no possibility of interactions between different voices; thus the ideal voice leading given above is the only possible voice-leading. In other words, a Schenkerian-derived sketch would be identical to Harrison's scale degree examples (as in Figure 5.10). Schenkerian theory is only illuminating when it helps identify which of many possible paths a particular piece follows; with a single path already determined, the descriptive power of one applicable method is as good as any other, whether it be Schenkerian theory, Harrison's scale degree theory, or simply Roman numerals. The possible transformations that can be used for the foreground elaboration of this structure are extremely limited. From the transformations listed in Figure 4.4, only repetition, arpeggiation, mixture, unfolding, and register transfer remain. (Unsupported passing tones and neighbors are also a possibility, but once they are supported, mediating diatonic harmonies are created.) Displacement, neighbors, linear progressions, uber- and untergreifen, and tonicization are not possible.

Second, as discussed in chapter 3, the interpretation of m# and b VI remains problematic. This is not only a problem of the chromatic. Even in the diatonic, the relationship between III and VI is essentially left undefined in Schenkerian theory because it is always mediated at some level by the dominant. For example, the progression given in Example 6.2 is fairly common, and is usually interpreted as shown in Example 6.3.
Example 6.2 Diatonic relation between iii and vi

Example 6.3 Pairing of III and I, VI and V

The III derives its meaning from its attachment to I, while the VI is attached to V, because both I and V have higher status. The only way to connect III and VI is to privilege the VI, and then to consider III a “leaping passing tone” between I and VI, or as an arpeggiation that prolongs I through III and VI, as shown in Example 6.4.

145Schenker does not allow VI to act as a prolongation of bass arpeggiation at the first level middleground. Thus in this case, the content of the first level middleground is the same as the content of the background, simply I-V-I.
Example 6.4 III and VI prolonging I

When this is transformed into $\flat$III and $\flat$VI with no mediating dominant, status is uncertain. As discussed above, Wolf often interpolates diatonic elements in order to clarify the status. There is a limited number of transformations available for composing out a chain of major thirds, but without diatonic interpolations, it is unclear what transformations obtain between members of the major third chain itself.

Clearly linear progressions do not occur, whereas repetition, mixture, and register transfer can occur. The biggest difficulty is the blurring of the distinction between neighbor motion and displacement. In the examples based on Harrison's scale degree theory, the overall chain of thirds is represented as a set of neighbor motions, due to mapping a chromatic pitch class onto its diatonic position in relation to a particular key (Figure 6.1).

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  \hat{N} \rightarrow b\hat{6} \rightarrow b\hat{6} \rightarrow T \hat{5}
  \hat{3} \rightarrow \hat{3} \rightarrow M \hat{3} \rightarrow M \hat{3}
  \hat{1} \rightarrow \hat{7} \rightarrow S \hat{1} \rightarrow \hat{1}
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Figure 6.1 Neighbor motions in ascending major thirds

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But at the same time, 7 discharges on 1 and 6 discharges on 5 as a generator of harmonic motion. For this change of harmonic function to occur at a background level in Schenkerian theory, a displacement must take place, one which does not occur through neighbor motion except very locally. In strictly diatonic space, discharge seems to be equivalent to displacement. In the context of chromatic space, as Harrison discusses, it is not clear what their relationship is. Thus to construct a background for this motion in the context of Schenkerian transformations requires eliminating most of the Schenkerian transformations we have discussed, as well as several other earlier Ursatz constraints postulated in Figure 4.3, including the descending Urlinie, I-V axis (except as a possible reference or analogy), and transformation of the first element. Perhaps most importantly, the difficulty encountered in defining the relationship between discharge and displacement points to removing the outer circle of diatonic tonality. Considering the lack of linear motion coupled with the drastically reduced number of Ursatz constraints, it may be possible to postulate an Ursatz, but it does not seem to be a particularly useful or meaningful activity. Similarly, constructing an Ursatz for In der Frühe, which contains a chain of
two minor thirds plus one major chain in the second half, did not constitute a
Schenkerian structure because even though it contains the potential for displacement,
Wolf did not realize that potential, but instead relies on arpeggiation and transposition.

6.2 “Dividing” as a Transformation

But even given the difficulties in relating the chromatic to Schenkerian theory
discussed above, there may be a way to incorporate some chromatic procedures
related to the equal division of the octave within a Schenkerian framework in certain
contexts. Earlier I briefly described Schenker’s view of III(6) as a “third-divider,” and
suggested that III# might be viewed as a chromatic divider between I and bVI (cf.
the discussion on pp. 136). I now wish to explore the notion of “divider” more
thoroughly.

Schenker often indicates dividers in his graphs, or refers to them informally in
his prose, but rarely discusses them at length. For example, a fifth-divider, also called
a “dividing dominant,” is a dominant chord in that it is a (usually) major chord built
on 5. But unlike a true dominant, its function is not to resolve to I (even if a tonic
chord follows); rather it grows out of the tonic that precedes it, dividing the space of
the octave harmonically. Example 6.5 shows Schenker’s graph of Mozart’s Sonata in
C Major, K. 545, 1st movement.
The dominant in m. 12 is marked "div." for divider. Note that this dominant serves to extend the tonic, but does not have a dominant function of its own. Perhaps more significantly, it is not the same as the dominant that immediately follows in m. 14, nor is it connected in any way to that dominant. They are completely different entities. The dominant in m. 14 is construed as a structural dominant, and functions as a dominant.

Similarly, Schenker sketches a third divider, as shown in Example 6.6.
Concerning this example, Schenker writes:

The paths in a) and b) represent an arpeggiation of the fifth through the third. This gives rise to the concept of a third-divider. The meaning of this third-divider changes according to whether it remains within the first harmonic degree, as at a), or whether it achieves the value of an independent root, especially when the third is raised (III\(^6\)), as at b). However, in both instances the essential unity of the fifth arpeggiation prevails over the third divider.\(^{146}\)

Thus the fifth-divider divides the octave diatonically, while the third-divider divides the fifth diatonically.\(^{147}\) They are considered to be dividers whether or not the entire space to be divided is articulated. This is shown in Example 6.5, in which the dominant is considered a divider even the complete octave that it is dividing is not represented on the surface. Similarly, Schenker offers an example of a third-divider at a fairly foreground level that does not continue on to V, as shown in Example 6.7.

![Example 6.7](image)

**Example 6.7** Schenker, *Free Composition*, Figure 131, 2, Chopin, Étude op. 10 no. 5

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\(^{146}\)Schenker, *Free Composition*, 29-30.

\(^{147}\)Schenker uses "Teiler" to refer to fifth- and third-dividers, but "Gliederung" for structural divisions or divisions of the *Urhinie*, although both are translated similarly as "division" or "divider."
Schenkerians tend to de-emphasize the space-dividing aspects of these dividers, and instead emphasize their origins. For example, a dividing dominant is often called a “back-relating dominant,” while a third-divider is often (incorrectly according to Schenker) referred to as an arpeggiation or simply as an “upper third.” While these can be legitimate labels depending on the context, they change the focus to the origins and/or harmonic/prolongational value of these dividers, rather than emphasizing the fact that dividers articulate a very specific type of motion that traverses tonal space. Space can be divided diatonically or chromatically, and the space itself that is to be divided can be either diatonically or chromatically conceived. It is this combination of possibilities that allows some chromatic processes to be conceived of in relation to a Schenkerian diatonic framework.

The most common diatonic third dividers are given below in Example 6.7. The fifth cannot be equally divided diatonically, so two possible divisions exist. Division through 3 is shown in Example 6.8 (a), while division through 3 is shown in Example 6.8 (b). Example 6.8 (c) and (d) show the space between I and IV divided by 6 and 6. Example 6.8 (c) and (d) are especially useful for illustrating the difference between division and arpeggiation. It is easy to see how one might assume that arpeggiation occurs in Example 6.8 (a) and (b); the bass notes of the chords can be “verticalized” into a single triad, I. But if arpeggiation is taken to obtain in Example 6.8 (c) and (d), then the harmony being arpeggiated is only IV, not I moving to IV. Other third divisions are possible. For example, the chain of third-related

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148 I have put the harmonic label in parentheses in these examples in order to maintain the distinction between the divider status of these chords in this particular context, and the other functional meanings these chords may have (although the two may coexist). Scale degrees are also used to refer to dividers for the same reason (the full chord is assumed to exist).

149 See, for example, the analysis of “America” in Proctor, “Technical Bases,” 167-168.
keys in the second half of *In der Frühe* (E+, G+, B♭+, D+) were informally described as diatonically dividing the seventh from E to D (see the discussion on 120). However, the third divisions given in Example 6.8 are those most commonly encountered.

Example 6.8 Common diatonic third-dividers

Example 6.8 shows the common diatonic fifth dividers. Example 6.8 a. shows the dividing dominant, which divides the octave harmonically (similar to Schenker’s Figure 14, shown in Example 6.6 above). Example 6.9 b. shows the arithmetic division of the octave, which is not a standard Schenkerian division.

Example 6.9 Common diatonic fifth-dividers
Chromatic division differs from diatonic division in that it takes as its basis the 12-tone chromatic scale rather than the diatonic collection.\textsuperscript{150} For example, equal chromatic divisions of the octave include the tritone and chains of major thirds. The fifth can not be chromatically divided, whereas the minor sixth can.\textsuperscript{151} These divisions are shown in Example 6.10 (the Arabic numerals indicate the number of semitones between chords).

![Example 6.10 Common chromatic dividers](image)

In all of these cases, both diatonic and chromatic, the common characteristic is the traversing of space through motions that are as equal as possible.\textsuperscript{152} Bearing this commonality in mind, I propose that “dividing” should be admitted to the rank of transformations, and that certain divisions, both diatonic and chromatic, should specifically be considered Schenkerian transformations (in addition to those postulated by Brown and Dempster in Figure 4.4) subject to the following conditions: 1) that the harmony or harmonies to which the divider is connected is/are diatonic, structural

\textsuperscript{150}Proctor discusses symmetrical chromatic divisions in “Technical Bases,” especially chapters 3 and 4.

\textsuperscript{151}Actually, the fifth could be conceptually chromatically divided by the “crack” between $\flat 3$ and $3$, but this division could not be represented by a simple triad.

\textsuperscript{152}All of these divisions are maximally equal within the diatonic or chromatic space that is to be divided: here also is where dividing is compatible with the notion of cycles.

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harmonies of higher status than the divider; 2) there is only one divider chord attached to each harmony of a higher level; 3) conventional voice-leading is employed, or in other words, the transposition operation is not present. Thus, all of the diatonic transformations in Example 6.8 and Example 6.9 are considered Schenkerian dividers. Certain chromatic dividers may also be admitted. We have already hinted that the chromatic division shown in Example 6.10 (c) can take place in a Schenkerian framework. The symmetrical division of the full octave in Example 6.10 (b) would not be a Schenkerian divider, because there are two consecutive "dividers." Similarly, the diatonic divisions by thirds seventh from E to D in the second half of In der Frühe is not a Schenkerian division for two reasons: 1) there are consecutive dividers, and 2) traditional voice-leading does not obtain; the transposition operation instead describes the relationship between each key area. The case in Example 6.10 (a) is more ambiguous. Dividing the octave in two yields a triad built on #4 as a divider, but it is not clear whether or not this is a diatonic chord. While Schenker occasionally describes a #IV chord, it is usually an applied diminished chord that resolves to V.

Because a motion is labeled a "division" does not mean that it cannot be acted upon by the other Schenkerian transformations. A division may still contain its diatonic functional meaning. For example, in Schenker's figure 14.1a) (given above as Example 6.6), Schenker labels the E in the bass as a third-divider, even though the chord is locally a I\(^6\). In this case, it seem clear that the third divides the space

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\(^{153}\)This reinforces our earlier discussion, which considered Schenkerian theory unilluminating (even when possible) in the case of a symmetrical division of the octave because of the few transformations available for composing out.

\(^{154}\)It is probably because of these diatonic references that some chromatic divisions can be conceived of within a diatonic framework.
between I and V (which is the main arpeggiation) while at the same time acting as a local arpeggiation that belongs to the tonic, although it does not displace the root of the tonic. Similarly, III# retains meaning as a mediant chord, while at the same time allowing the possibility of division. It is these multiple diatonic and chromatic references that allows the same chord to function many ways, leading to the

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155 Schenker is not clear on the issue of arpeggiation versus division. For example, under the heading “Arpeggiation through the third,” he writes, “an arpeggiation of the fifth through the third...gives rise to the concept of third-divider (Free Composition, 29).” Yet later he writes, “The third-divider differs from arpeggiation through the third in that an interruption occurs in connection with the third-divider as it does with the fifth divider, whereas in the third-arpeggiation the third returns to the root (Free Composition, 113-114).” In the first quote, “third-divider” is a subset of “arpeggiation through the third,” while in the second quote “third divider” is differentiated from “arpeggiation through the third.” This may be a question of levels; the first quote is discussing the first level middleground, while the second is describing specific foreground events. It is also possible that the relationship between arpeggiation and dividing depends on the context.

156 Concerning Schenker's examples of equal division of the octave, Sonia Slatin raises several questions, most of which are still discussed today. She writes, “How is it that an arpeggiation that includes the replacement of a tone as vital to the meaning of the triad as the fifth can function on the same unifying level as the purely diatonic triad? How can the raised fifth—a product of counterpoint which is totally unrelated to the harmonic origins of the fifth indigenous to the diatonic triad—substitute for the true fifth, and join in the function of the large scale arpeggiation as a source of unity on an ultimate level of meaning and perception....The problem presented by this kind of arpeggiation is not explained by the theorist. Perhaps these and similar analyses suggest a development of Schenker's ideas that, because of his death, he was unable to pursue.” In “The Theories of Heinrich Schenker in Perspective” (Ph.D. diss, Columbia University, 1967), 275-276. If however, this is taken as division rather than arpeggiation, many of these issues become irrelevant.
possibility of wholly chromatic processes. A divider may also be prolonged as a local tonic, although it will always be structurally subsidiary to the framing harmony/ies that demarcate the space that is divided.

Let us examine how "divider," when considered as a transformation, can help in the analysis of Wolf's songs. We have already used the divider transformation informally in the analysis of Das Ständchen to describe the relationship of the main key areas as the dividers of the space opened in the introduction, as shown in Example 5.8, as well as positing III# as a chromatic divider between I and bVI. This can now be labeled formally as a third-divider, as shown in Example 6.11.

Example 6.11 Das Ständchen, III# as divider

157Patrick McCreless examines the use of semitone motions within diatonic and chromatic/transpositional contexts in his "An Evolutionary Perspective on Nineteenth-Century Semitonal Relations," in The Second Practice of Nineteenth-Century Tonality, eds.William Kinderman and Harald Krebs, 87-113. (Lincoln: University of Nebraska Press, 1996). He argues that deciding when a semitone relation is a "neighbor" and when it is a chromatic/transposition relation depends on the individual conservative or radical perception (as well as the "depth") of the listener, and that the frequent use of it eventually pulled us out of a diatonic mindset and into a "Schoenbergian" mindset. Interestingly, McCreless cites
6.3 Analysis of *In dem Schatten meiner Locken*

Let us briefly examine Wolf's well-known *In den Schatten meiner Locken*, which also makes extensive use of dividers.\textsuperscript{158} The text is given below.\textsuperscript{159}

Stephen Jay Gould's theories of evolution. While McCreless's transfer of Gould's "preadaptation" to music is evocative, McCreless's statement, "[Gould] argues that evolution works slowly," is somewhat misleading. Although the time it takes a preadaptation to become prevalent or more developed in a population may be fairly long, once this preadaptation takes on a new function and becomes advantageous, evolution occurs quite quickly. In fact, Gould favors a view of evolution that include "plateaus" interspersed with steep ascents, rather than the gradual, unbroken slope of traditional evolution (as represented by the familiar diagram of "the ascent of man" in which the man/ape at the left side of the diagram gradually stands taller and walks more on his feet in each representative stage, finally emerging as a full man by the right side of the diagram. It is interesting to speculate how Gould's view of rapid evolution would map onto music history.

\textsuperscript{158}*In dem Schatten meiner Locken* is also analyzed by Stein, *Hugo Wolf's Lieder*, 97-102; and by Salzer, *Structural Hearing*, especially fig. 382.

\textsuperscript{159}*In dem Schatten meiner Locken*, an anonymous Spanish poem translated to German by Paul Heyse in his and Emanuel Geibel's *Spanisches Liederbuch* (1862), was set by Wolf in his *Spanisches Liederbuch*, Weltliche Lieder #2 in 1889. English translation by Stein, *Hugo Wolf's Lieder*, 99.
In dem Schatten meiner Locken,
Schlief mir mein Geliebter ein.
Weck' ich ihn nun auf?—Ach nein!

Sorglich strähl’ ich meine Krausen
Locken täglich in der Frühe,
Doch umsonst ist meine Mühe,
Weil die Winde sie zerausen.
Lockenschatten, Windessaussen
Schärfen den Liebsten ein.
Weck' ich ihn nun auf?—Ach nein!

Hören muss ich, wie ihn grämne,
Dass er schmachtet schon so lange,
Dass ihm Leben geb' und nehme
Diese meine braune Wange.
Und er nennt mich sein Schlange,
Und doch schließt er bei mir ein.
Weck' ich ihn nun auf?—Ach nein!

In the shadow of my tresses,
My beloved has fallen asleep.
Shall I awaken him now?—no!

With care I comb my ruffled
Locks daily in early morning,
Yet in vain is my trouble.
For the winds dishevel them.
Shadows of curls, rushing of winds
Have lulled my love to sleep.
Shall I awaken him now?—no!

I must hear how it would grieve him,
That he yearned so long,
That they give or take life,
These, my brown cheeks.
And he calls me his serpent,
And yet he falls asleep beside me.
Shall I awaken him now?—no!

Figure 6.2 Text of *In dem Schatten meiner Locken*

The music of the first stanza establishes division as an important
transformation in the piece. A sketch of the first section is given in Example 6.12.

![Example 6.12] In dem Schatten, mm. 1-12

The opening tonic moves to a diatonic dividing dominant at the end of the first
four bars. Then the piece shifts abruptly to III# as a chromatic divider between I and
b VI, which in turn acts as an upper neighbor to the higher level dominant in m. 11. Thus the first phrase presents two different divisions: a diatonic fifth-divider, and a chromatic third-divider. As in *Wir Haben*, the overall harmonic motion in the first phrase is reflected in the opening of the melody, as shown below in Example 6.13.

Example 6.13 *In dem Schatten*, mm. 1-2.

The piece continues as shown in Example 6.14.

Example 6.14 *In dem Schatten*, mm. 12-43
In mm. 12-15, it appears as if F is acting as a fifth divider as it did in the first phrase, but instead it is interpreted as a divider of the second (ninth) from Bb to C; this C then acts as a passing tone to the third-divider D major (it is not clear if this will be a diatonic third-divider and move to V, or a chromatic third divider and move to \( bVI \), as it did in the first phrase). The tonic Bb then returns, and the other diatonic third divider, Db, is articulated. This Db is reinterpreted as \( bVI \) of V of F (much like Gb in the first phrase). But in mm. 34-39, D major and F major alternate every other measure, as if each potential divider is struggling to gain control of the direction of the piece (it is here that the woman with the tresses begins to doubt the sincerity of her lover, who calls her a serpent, and she longs to wake him for reassurance). The D major temporarily directs the tonal motion, “winning” as a chromatic divider as the piece moves to F\#, and then to the tonic Bb without revisiting the dominant F. But the piece then concludes as it began, with the F\#/Gb chord reinterpreted as subsidiary to the dominant F, as shown previously in Example 6.12. Thus the transformation of “dividing” can provide a new way to interpret chord successions that are otherwise difficult to explain. Sometimes dividing is within the context of Schenkerian diatonic processes, as in *Das Ständchen*, or in the first phrase of *In dem Schatten meiner Locken*. Other times these divisions are only chromatic, and can contradict a Schenkerian diatonic environment, as in mm. 34-43 of *In dem Schatten meiner Locken*, where D major and F major conflict, with the chromatic division ultimately succeeding as D major moves to F\# major and finally to tonic, bypassing the dominant F.
Postulating dividing as a new Schenkerian transformation allows more types of musical motion to be included within the powerful explanatory apparatus of Schenkerian theory. Similarly, the reconception of the Ursatz as a set of intersecting constraints will allow a broader range of pieces to be examined without requiring them to fit the traditional Ursatz. It also provides a theoretical framework for exploring the possibilities of Ur(1)nien different from the ones I have postulated (neighbor notes, ascending, and so on) that may operate in this pieces, providing a way to examine why they have been excluded from the Schenkerian canon in the first place.

The reconception of the Ursatz has pedagogical ramifications as well. For example, when a student asks why the Ur(1)nien can't ascend, he or she is typically told, "Because it doesn't," or "Because Schenker said so," or even, "Because that's not how music goes." These questions can now be answered, within a Schenkerian context, with "What effect does a positing an ascending Ur(1)nien have on an analysis? What happens to the other constraints?" For example, adding the constraint of temporal closure to the Ursatz in the analysis of Brahms's Der Tod had varying effects. Positing closure in mm. 26-27 (refer back to Example 4.4) diminishes the number of constraints of the Ursatz as well as the available transformations to such a degree that it hardly seems a worthwhile analysis. On the other hand, positing closure in mm. 24-25 (refer back to Example 4.6) only slightly weakens the T-D axis constraint, but adds the closure constraint, in a sense making it comparable to the strict Schenkerian analysis (closure in mm. 17-18, as shown in Example 4.3). This allows different elements of the Ursatz to be evaluated independently as well as together.

In many ways, this reconsideration of the Ursatz fundamentally changes the nature of Schenkerian theory. For example, it requires following the voice-leading
threads of several voices throughout a composition, rather than choosing a single line 
*a priori* based on Schenker's *Ursatz*. The analyst may then choose to elevate one or 
more of those lines to a higher level; often a Schenkerian *Ursatz* will still obtain. 
Perhaps more importantly, this reconsideration of the *Ursatz* requires the analyst to 
explicitly articulate the assumptions and conditions of the analysis, rather than relying 
on implicit appeals to nature or authority.

Wolf's songs act as an interesting source for methodological and theoretical 
reflection. The particular songs examined have facilitated the examination of the 
interpenetration of diatonic and the chromatic processes within clearly delineated keys 
in diatonic, chromatic, and mixed environments. While I am wary of labels like 
"progressive" and "conservative," "unity" and "disunity," I think it is safe to say that 
Wolf's choices of key areas and progressions is not haphazard, but instead always 
follows a certain logic, whether that be traditional Schenkerian tonal grammar, the 
diatonic and chromatic divisions of tonal space, or the layering of harmonic and 
melodic motives. I am also wary of the "intentional fallacy," and of the tenuous 
connection between a composer's intentions and a listener's perceptions, but it seems 
plausible that Wolf was sensitive to the multiple possibilities when both the diatonic 
and the chromatic exist as potential tonal spaces. This can be seen in the alternative 
symmetrical resolutions of the opening tritone in *Wir haben Beide lang Zeit 
geschwiegen* (cf. 52ff.), the use of III# as both a potential diatonic and chromatic 
divider in *In dem Schatten meine Locken*, to the mixed diatonic and chromatic nature 
of the chain of thirds in second half of *In der Frühe* (cf. 128 ff.).
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APPENDIX

SCORES
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